

## ШОЛУЛАР, СЫН ЖӘНЕ БИБЛИОГРАФИЯ

### ОБЗОРЫ, КРИТИКА И БИБЛИОГРАФИЯ

#### REVIEWS, CRITICISM AND BIBLIOGRAPHY

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#### FEATURES OF VOWEL HARMONY IN THE DIALECTS OF MODERN TURKIC LANGUAGES

*This review article provides a comprehensive analysis of scholarly works devoted to the phenomenon of vowel harmony (syngarmonism) in Turkic languages. Drawing on research by Turkologists and linguists, the study systematizes the functions of syngarmonism at the phonetic, phonological, morphological, and prosodic levels. It also examines the historical development of the phenomenon, its manifestations in contemporary Turkic dialects, and the factors contributing to the disruption of harmony rules in relation to the internal evolutionary processes of language development.*

*Based on materials from Kazakh, Crimean Tatar, Azerbaijani, and Uzbek, the review analyzes the degree of preservation of labial and palatal harmony, positional alternations of vowels, and assimilation processes, while comparing their articulatory and acoustic characteristics. The study highlights the role of syngarmonism in the formation of grammatical categories and in maintaining the structural integrity of Turkic languages, emphasizing its significance as one of the fundamental indicators of their genetic unity.*

*Key words: Turkic languages, syngarmonism, vowel harmony, dialects, phonetics, morphology, assimilation, articulation, historical development.*

#### MAIN PROVISIONS

This study is aimed at a comprehensive investigation of the historical development of vowel harmony in Turkic languages, its role within the language system, its functional significance, and regional characteristics. Vowel harmony is considered not only one of the main phonetic laws that ensure the internal phonological harmony of Turkic languages, but also a complex, multifaceted linguistic process directly influencing the formation of morphological structures, word formation, and verbal morphology. This phenomenon serves as a key indicator of dialectal diversity and the dynamic nature of language structure. Furthermore, the study examines the impact of vowel harmony on linguistic norms and its stylistic functions, demonstrating that this phenomenon extends beyond purely phonetic processes and holds cultural and spiritual significance. During the research, previous scientific studies and the works of leading Turkologists were thoroughly analyzed. In particular, the works of N.K. Dmitriev, N.H. Olmesov, N.I. Ashmarin, E.D. Polivanov, V.V. Reshetov, A.T. Kaidarov, A.M. Shcherbak, E.I. Azizov, and B.Kh. Tudaeva were critically examined. Their scholarly conclusions were employed to ensure the objectivity of the research data. This approach allows for a reliable comparison and analysis of the features of vowel harmony across different dialects. Additionally, the results of previous studies were synthesized, and their methodological and theoretical conclusions were integrated to formulate the researchers' own scientific insights. The comparative-historical approach facilitated a comprehensive analysis of

the historical development of vowel harmony, as well as its phonetic, morphological, and typological aspects within a coherent scientific framework.

Thus, the scientific justification of this study is aimed at providing an in-depth characterization of the complex nature of vowel harmony, its integrative role in the language system, and its connection with dialectal variation. The findings contribute to the understanding of the phonological structure of Turkic languages, morphological stability, dialectal features, and cultural-cognitive aspects, positioning vowel harmony not only as a phonetic phenomenon but also as a functional and cultural linguistic feature.

## INTRODUCTION

One of the fundamental phonetic laws of Turkic languages is the harmony of consonant and vowel. One of the fundamental phonetic laws of Turkic languages is vowel and consonant harmony. This phenomenon ensures the internal phonological coherence of a language, manifesting in the compatibility and correspondence between vowels and consonants. Sound harmony is not merely a phonetic law but a complex, multifaceted phenomenon that directly affects the formation of morphological structures, word formation, and verbal morphology. Its manifestations can be traced from ancient written monuments to modern dialects, demonstrating its stability and functional significance throughout historical development. Therefore, studying sound harmony is crucial not only for phonetic analysis but also for understanding the structural organization and historical development of Turkic languages.

Throughout their long historical evolution, Turkic languages have undergone significant phonetic, morphological, and semantic changes. These languages sometimes diverged due to social, cultural, or geographic factors, while at other times they converged, developing similar features under shared influences. The interaction between vowels and consonants plays a key role in these processes, with harmonic principles forming the basis for systematic changes at both morphemic and lexical levels. By examining these patterns, researchers can gain deeper insights into the historical development of Turkic languages, their dialectal variation, and the evolution of their morphological systems. Moreover, the internal consistency of phonological systems is revealed through harmonic relationships, highlighting the systematic organization of sounds within a language.

Sound harmony also has a significant impact on syntax. Morphological alternations regulated by harmony allow for precise expression of semantic relationships within sentences. In this regard, vowel and consonant harmony is not merely a phonetic feature but a crucial tool that ensures the coordinated interaction of morphological and syntactic structures. Harmony rules facilitate the correct placement of morphemes within words, enhance semantic clarity, and contribute to the logical coherence of linguistic constructions. Thus, sound harmony is considered a multidimensional phenomenon that integrates phonology, morphology, and syntax.

Research by various scholars demonstrates the multifaceted significance of vowel and consonant harmony. E. Tenishev (1971) highlighted the role of phonetic-phonemic regulation in language development, while F. de Saussure (2000) explored the influence of sound changes on the historical evolution of linguistic systems. Shcherbak (1970) showed that the interaction between vowels and consonants contributes to the stability of a language's morphological structure. Subsequent research has extended these findings to numerous Turkic languages and their dialects. For instance, V.V. Reshetov (1956) analyzed Uzbek, revealing the relationship between phonetic laws and morphological stability; A.T. Kaidarov (1969) studied modern literary Uyghur, emphasizing the role of vowel harmony in phonological evolution; E.I. Azizov (1974) described regional features of harmonic patterns in Azerbaijani dialects. R.S. Kadyrov (2000) analyzed phonetic and lexical aspects of the Derbent dialect of Azerbaijani, while S. Myrzabekov (1993) provided a comprehensive description of the Kazakh sound system, demonstrating the importance of harmony for phonological and morphological stability. Typological and comparative studies also

confirm the widespread presence of vowel harmony across Turkic languages (H. Van der Hulst & J. van de Weijer, 1995, A. Göksel, C. Kerslake, 2005, J. Kornfilt, 1997).

These studies collectively indicate that sound harmony is not only a phonetic law but also a morphological, syntactic, and cognitive phenomenon. A comprehensive study of harmony allows for understanding the phonological organization, historical development, dialectal characteristics, and typological and genetic relationships of Turkic languages. Harmony ensures the consistency of morphological and syntactic structures and plays a critical role in maintaining linguistic coherence. Furthermore, this phenomenon is significant for cognitive and psycholinguistic research, as it provides insights into the mechanisms of sound perception and production, reflecting underlying patterns in linguistic cognition.

In conclusion, the study of vowel and consonant harmony represents a comprehensive scientific inquiry that goes beyond phonetic laws. It provides insights into historical language development, dialectal diversity, morphological structure, and syntactic coherence. Such a review enables a systematic understanding of the complex mechanisms of linguistic structure, internal consistency, structural integrity, and evolutionary processes of languages. Consequently, vowel and consonant harmony remains an indispensable area of research in Turkic linguistics, integrating phonology, morphology, syntax, and cognitive aspects into a unified analytical framework.

## MATERIALS AND METHODS

The article is devoted to the features of vowel harmony in the dialects of Kazakh, Uyghur, Uzbek, Azerbaijani, and Kumyk. The primary aim of the study is to identify the characteristics of vowel harmony in Turkic dialects, its historical development, its role within the language system, and its dependence on social, geographic, and linguistic factors. To achieve this goal, the phonetic features of vowels, dialectal variations, and patterns of vowel harmony were comprehensively analyzed based on the works of prominent Turkologists. Vowel harmony is considered not only as a phonetic phenomenon but also as a complex linguistic process influencing dialectal diversity and the dynamics of language structure. The study also took into account morphological, typological, and social factors. Research Methods, comparative-historical method – allowed for the examination of the historical development of vowel harmony and its variants across different dialects. Literature review method - provided a systematization and analysis of scientific data relevant to the research topic. Classification (grouping) method - employed to categorize, compare, and structure the collected data. Synthesis (generalization) method - enabled the integration of collected information and the formulation of overall scientific conclusions. The results of the study provide a comprehensive characterization of the dialectal features of vowel harmony, its historical development, its role within the language system, and its connection with cultural factors. The study demonstrates scientific novelty and reveals the complex, multifaceted nature of vowel harmony in Turkic languages.

## RESULTS

The study presents a comprehensive analysis of the current state and dialectal features of vowel harmony in Turkic languages. The findings indicate that in many Turkic languages, particularly concerning labial and palatal harmony, the rule of vowel harmony is unevenly preserved: in some languages it is partially maintained, whereas in others it has almost entirely disappeared. In Kazakh dialects, vowel harmony remains stable and systematic, while in certain Uyghur and Kumyk dialects, only isolated instances of its preservation are observed. In Azerbaijani and Uzbek dialects, the harmony system has weakened, although some regional varieties retain relic features. Labial harmony was found to be the most unstable phonetic phenomenon, with its disruption attributed to vowel alternation, non-compliance with harmony in affixation, the influence of borrowed lexicon, and historical sound changes. Historical-phonetic analysis revealed that the

vowel /i/ is an earlier historical variant of the phoneme /y/. In Kazakh, deviations from vowel harmony occur primarily in loanwords and colloquial forms.

Overall, the research demonstrated that transformations in vowel harmony are influenced by historical-phonetic development, extralinguistic factors, geographical and social conditions, as well as interlingual contacts. Palatal harmony is a more stable and systematic phenomenon, whereas labial harmony exhibits greater variability and susceptibility to change. The articulatory-acoustic approach provided a deeper understanding of the phonetic nature of vowel harmony and facilitated the explanation of dialectal differences within a comparative-historical framework.

The practical significance of the findings lies in their applicability to comparative analyses of Turkic phonological systems, dialectological studies, descriptions of historical language development, and assessments of the phonetic impact of borrowed vocabulary. Thus, vowel harmony is considered not merely as a phonetic feature but also as a critical indicator of the historical formation and structural organization of the language, highlighting the need for further research into its historical-functional role, its position in contemporary linguistic systems, and the factors underlying dialectal variation.

## DISCUSSION

Vowel harmony in Turkic languages is considered one of the oldest phonetic phenomena and plays an important role in shaping the phonological system of the language. This phenomenon ensures that vowels and consonants within a word follow certain patterns, contributing to the correct preservation of the morphological structure. In Turkic languages, through the correspondence of front and back vowels, suffixes are attached to roots in a way that adapts to the vowels of the root, allowing the morphological harmony of the word to be maintained [1, 337]. Phonetically, vowels determine the prosody of a word and shape its articulatory-acoustic characteristics. In syllable formation, vowels play a key role and, interacting with consonants, create open, semi-closed, and closed syllables. Moreover, when new suffixes are added to a historical root, sounds that are articulatorily close to the root are selected, which helps preserve the harmony of sounds and the melodic integrity of the language [2, 147]. According to Turkologist Sh.Sh. Zhalmakhanov, changes in sounds and syllables are closely related to their neighboring positions, meaning that adjacent sounds exert positional influence on each other [3, 50]. Through this connection, vowel harmony ensures the internal cohesion of the word. As a result, vowels perform an organizational function not only at the level of individual sounds but also within the overall structure of the word. Vowel harmony in Turkic languages is significant not only as a phonetic phenomenon but also at morphological and prosodic levels. Studying this phenomenon allows for a deeper understanding of the historical development of Turkic languages, the relationships among dialects, and the semantic characteristics of grammatical structures. The main function of vowel harmony is prosodic, that is, to unite all the sounds that make up a word. When affixes are added to a historical root that has a certain semantic unity and consists of a single sound complex, sounds that are articulatorily very close to the root are added. Thus, vowel harmony is a harmonious melodic pronunciation of both vowels and consonants that are part of the sound complex. Vowel harmony is an articulatory-acoustic feature of the prosody of a word and means of determining its integral structure and the boundaries of a word in the speech process. Vowel harmony combines vowels and consonants in monosyllabic words and syllables in polysyllabic words. Vowels play a key role in the formation of syllables, forming, together with consonants, their various types – open, semi-closed and closed.

Vowel harmony tends to dominate, while consonant vowel harmony occupies a subordinate position. If a word is polysyllabic, then vowel harmony based on palatal and labial features determines the meaning of the word. Violations of labial vowel harmony are associated both with the absence of short-vowel variants of some affixes and with restrictions on the positional placement of the labial sounds [o, ö]: *öse* «grows», *bura* «rotate». Such violations are also observed near labial consonants (b, p, v, m). In Turkic languages, vowel harmony plays an

important role in the formation of the initial part of a word, but cases of its violation are quite common. Such violations are caused by both external influences and internal laws of language evolution. N.Dmitriev associates the violation of vowel harmony in the Kumyk words *bičak* «knife» and *bišlaq* «cheese» with a parallel process of reverse assimilation, that is, dissimilation occurring within one language [4, 21-22]. Such violations can also be associated with individual affixes, such as *doq*, *-ki*, *-suv*, characteristic of Turkic languages. In words beginning with anlaut [i], a deviation from the harmony of soft consonants is observed; for example, *iqliq* «hidden place», Kum, *işiq* «place protected from the wind» and in terekeme dialects *işiqli* «sunny». Many Turkologists also identify several reasons for the violation of vowel harmony, noting that deviations from the phonetic order are most often explained by the borrowing of words from languages with different sound systems or by subsequent internal changes, which are sometimes related to the influence of other languages or the initial absence of harmony. The interpretation of harmony violations as a consequence of external linguistic influence is the most common viewpoint. In this regard, vowel harmony is a characteristic feature exclusive to Turkic languages, deeply embedded in their morphology, vocabulary, and other levels, and its loss is possible only under the strong influence of linguistic habits foreign to this system, that is, under the influence of non-Turkic languages. Researchers N.Dmitriev (1948) classify the subdialects of the Kaitag dialect of the Kumyk language, as well as the dialects of the peoples of the mountain slope, as varieties in which vowel harmony has been lost. N.Dmitriev notes that in the Kaitag dialect, vowel harmony has a dissimilative character. This means that the quality of the vowel does not fundamentally determine the quality of the vowels in the affix according to the rules of vowel harmony, but on the contrary, «... vowel harmony is not violated, is not lost, but turns inside out». In studies of the Derbent subdialect, vowel harmony is considered a phonetic phenomenon expressed in the coordination of the sound structure of vowels and consonants between the root and the affix or final formant. In the Turkic tradition – both within the framework of Kumyk and Azerbaijani linguistics – vowel harmony has long been understood primarily as the coordination of vowel affixes with the vowels of the root. However, when examining the harmony of consonants, N.Dmitriev pointed out the tendency of the first consonant sound of the affix to be coordinated with the last consonant of the root based on the sign of voicedness or voicelessness. It should be noted that not all consonants in affixes demonstrate complete adaptation to the phonetics of the root. The primary criterion for classifying speech sounds is the involvement of the vocal folds (also referred to in phonetic literature as the vocal curtain or vocal membrane) [4, 24], which underlies the distinction between voiced and voiceless consonants. This physiological basis explains the tendency observed by N.Dmitriev in the assimilation of affixal consonants to root-final consonants. N.Dmitriev believes that the loss of palatal harmony in the Kumyk dialects is caused by external linguistic influence. We do not agree with this opinion, since, as the materials show, the violation of vowel harmony in Turkic languages is caused not only by external factors but also by the fact that such violations occur not only in borrowed words but also in purely Turkic words. Another reason for the violation of vowel harmony in the phonetic system of Turkic languages is the presence or absence of contrasting pairs of vowels.

Our concluding view regarding our scholar Dmitriev's opinion is as follows: according to him, the loss of palatal harmony in Kumyk dialects is associated with external linguistic influence. However, as the materials show, the disruption of sound harmony arises not only from external factors but also from internal linguistic regularities. Disharmony in Turkic languages often occurs even in purely Turkic words, which is a result of the natural evolutionary process of the system. Additionally, the characteristics of certain affixes or sounds, which depend on the phonetic context, can also cause harmony violations. Therefore, our scholar Dmitriev's perspective, based solely on external factors, appears incomplete: the disruption of harmony is a complex and multifaceted phenomenon resulting from the interaction of both internal and external factors.

A.Sherbak, in his work «Comparative Phonetics of Turkic Languages» (1970), demonstrated that in the Uzbek language, vowels are not parallelly divided into “hard” and «soft». This phenomenon appeared relatively late, since maintaining vowel harmony, which is very important

for Turkic languages and a common Turkic feature, was disrupted. V.Reshetov, in his work *The Uzbek Language*, thoroughly examined the interdependence between the loss of synharmony in Uzbek utterances and the processes of convergence, showing that opposing vowels in the Turkic vocalic system gradually approach each other in quality. According to him, in the modern Uzbek literary language, three phonemes – i, u, ʏ – replace the six traditional phonemes of the Turkic vocalic system (i-ы, ʏ-u, ö-o), while the indicated phonemes i-ы, ʏ-u, ö-o in some utterances are pronounced with dj- or y- and used as separate phonemes [5,117]. In general, the division of vowels into hard and soft emerged later this has long been proven by Turkologists and linguists, as the law of vowel harmony, which is characteristic and important for all Turkic languages, was disrupted.

In our opinion, these data clearly demonstrate the evolutionary changes in vowel harmony within the system of Kazakhized Turkic languages. As shown by the research of Sherbak and Reshetov, the traditional division of vowels into “hard” and “soft” in the Uzbek language emerged relatively late. This is mainly due to the gradual weakening of the vowel harmony law, which is characteristic of Turkic languages, and certain phonetic changes. Additionally, as Reshetov notes, in the modern Uzbek literary language, several traditional phonemes have been replaced by new ones, which proves that the language’s sound system has changed through processes of convergence. In our opinion, these changes in the vowel system of the Uzbek language are not merely the result of external influence or random occurrences, but rather the logical outcome of the historical evolution of vowel harmony in Turkic languages. This process demonstrates the formation of a new phonemic system while maintaining the phonetic stability of the language and provides an important insight into understanding the development of sound harmony across all Turkic languages

A.Kaydarov explains the disruption of vowel harmony in the Uyghur language by the presence of indifferent phonemes (i, e) that lack synharmonic pairs. Being neutral sounds, they allow combinations of vowels from different rows (as well as consonants), creating indifferent variants of grammatical forms (e.g., -ni, -nin, -din, -ici, etc.). The professor notes that this is not the only reason for the disruption of vowel harmony, concluding that the influence of other foreign languages, especially non-harmonic languages with which there was long-term interaction, also played a role. Additionally, the instability of the phoneme «a» and its susceptibility to various phonetic transformations (a-ы, a-o, palatalization/umlaut) is an internal factor disrupting labial vowel harmony. Therefore, he argues that the instability of the vowel «a» and its tendency to change into «e», «o», or «ы» is significant. He associates the emergence of indifferent vowels in Uyghur with the widespread distribution of late vowel-selection harmony within the Ili linguistic community [6, 240].

With regard to the Azerbaijani language, E.Azizov emphasizes: «Vowel harmony in the modern Azerbaijani literary language is manifested by a number of features in the root bases. Some researchers, relying on such examples as ilan, ışıq, inanmag, ılıq, dəyirman, etc., point to the weakening of vowel harmony in the Azerbaijani language...». At the same time, as noted, words that have lost harmony in the literary norm often continue to exist in a vowel form in dialects and subdialects, for example: «ylan//ilən, fyx, dəjr-mən, ynam, inan-max, ylyx, ıldırım//jıldırım//juldurum//jildirim//ildir-im, jylkhi//jilhi//ilhi, tıkan//tikän, yshyldamaq, ishlyty, yslam-max, etc» – further, E.Azizov states: «Although the initial vowel in words such as ilyg, ishyğ, ylan and others, from the perspective of the modern Azerbaijani literary language is classified as the phoneme «i» in the historical context it should be considered a variant of the phoneme «a» [7, 11-12]. We also agree that the vowel “i” should historically be considered a variant of the phoneme “a”. Regarding the violation of the law of vowel harmony. In fact, it cannot be said that only external or only internal factors had a significant impact on the violation of vowel harmony, since in the historical development of language, external and internal factors are interconnected and related. The problem of extralinguistic factors in the development of the language system remains a primary subject of study in linguistics. However, regardless of their interconnection, if there were no internal impulse, external factors alone could not have caused such a violation of vowel harmony. Violations of the law of vowel harmony are also observed in the dialects and subdialects of modern Turkic languages. In the Ullubiyaul subdialect of the Kumyk

language, the harmony of palatal vowels is preserved, but sound quality differs from that in the Kumyk literary language. This process is expressed in the replacement of all soft vowels with the sounds [o, u, a], as well as in the change of the vowel [e] in subsequent syllables, especially in affixes, to the sound [a]. The reasons for such changes, as shown earlier, are associated with the numerical discrepancy between vowels in the Kumyk literary language and this subdialect.

The fact that we distinguish between labial and palatal harmony does not mean that these processes are interdependent morphological phenomena. On the contrary, as N. Dmitriev has shown, the principles of labial and palatal harmony are realized simultaneously. Therefore, labial harmony should not be considered separately from palatal harmony, but as part of a single process of labial-palatal harmony [4, 9]. In the Ullubiyaul subdialect, the front labial vowels оь, уь (ö, ü) are often encountered, and there are also cases of violation of labial vowel harmony. In four-variant affixes, labial vowel harmony is not stable, as is palatal vowel harmony. When adding four-variant affixes of the literary language to the root in the Ullubiyaul subdialect, labial vowel harmony appears with certain changes, when instead of a hard labial vowel, a soft labial vowel is used: ul. *gurgur* – lit. *gyurgyur* «turkey», ul. *oksuzmu?* – lit. *oksyuzmyu* «Is she an orphan?», ul. *ulgumu* – lit. *ulgyumyu!* «Is it a sample». This phenomenon is observed not only in affixes, but also in roots: ul. *кoр* – lit. *kör* «grave», ul. *muğur* – lit. *myuğyur* «print», ul. *oktem* – lit. *Öktem* «proud», etc. As can be seen, the words of the Ullubiyaul subdialect are characterized by back labial vowel harmony, while in the Kumyk literary language front labial vowel harmony predominates.

Thus, as shown by the studies of A. Kaydarov and E. Azizov, the disruption of vowel harmony is not solely dependent on external or internal factors; it is a complex and multifaceted process. The changes in neutral vowels in Uzbek and Uyghur, as well as the phonetic changes in the Kumyk subdialects, demonstrate that the rules of vowel harmony have naturally evolved over historical time. Labial and palatal harmony are interconnected and function as a unified process, although phonetic stability varies across different subdialects. Therefore, the modern disharmonies observed in Turkic languages are a complex phenomenon, influenced not only by external linguistic factors but also by internal linguistic rules, phonetic context, and historical evolutionary processes.

In Azerbaijani linguistics, vowel harmony is considered a phonetic phenomenon in which vowels in affixes are subject to the labial-palatal characteristics of the vowel in the stem [8, 53]. However, within the vowel-harmonic sound complex, both vowels and consonants are influenced by the vowel-harmonic timbre. In this case, the consonant has a weak influence on the sound coloring of the vowel, while the vowel has a stronger influence on the sound coloring of the consonant. In the Terekeme subdialect, the harmony of soft sounds is most consistent. As in other Turkic languages, the harmony of soft sounds is influenced by two variants of affixes: *halsiz* – *çox ağır xəstə* «very sick person», *ağzylyk* – *yuyyan ağızlığı*, *dahna* «bridle», *gavalı* – *gavalı* «plum», *gugurtgan* – *böyürtkən* «blackberry», *qaqama* «fried eggs in a frying pan made of dough», *tapqır* – *üzəngi* «stirrup», *pad. yalançı* – *yalançı* «deceiver», *yamgurlu* – *yağışlı* «rainy», *çisginli* – *dumanlı* «foggy, rainy», *gəlin* – *gəlin* «bride», *obeci* «midwife», *n. Kum. eneci*, *açar* – *açar* «key». Labial vowel harmony is observed in disyllabic words: *qupu* – *tohna* «hoe», *urşu* – *binövra* «foundation», *ququ* – *qayğanaq* «scrambled eggs». Affixes containing a hard vowel have two phonetic variants: one with a front soft sound [e], and one with a back hard sound [a]. Affixes containing a front soft sound [e] are attached to the word stem or to the affixes that come before it, as follows: 1) all vowels in a word combine with voiceless consonants when they all represent a semi-open front soft [e]. Examples: *elək* «sieve», *əgər* «if», *əgəv* «file», *şəkər* «sugar», *ətək* «hem», *vermək* «give», *bəzəmək* «decorate», *gəzmək* «walk», *kersən* «trough»; 2) when the final vowel of the root is a front vowel [e]: *qusmak* «disgust», *arek* «distance», *ördək* «duck», *gumelek* «butterfly», *incə* «thin», *çiyələk* «strawberry», *cənnət* «paradise». Violation of palatal harmony in the Azerbaijani language is mainly characteristic of the eastern and northern dialect groups, while in the southern group it is less common. For example, in the Baku dialect one can encounter such pronunciation variants as *guzi* – lit. *guzu* «lamb», *goşi* < *gonşu* «neighbor»; in the word-formation affixes: *čajçi* < *čajçy* «tea producer», *daddi* < *dadly* «sweet» (in addition to the violation of palatal harmony, progressive assimilation of consonants is also observed in this word). The main difference between

the Terekeme dialect of the Azerbaijani language and the literary language is the violation of vowel harmony. Violation of labial harmony of vowels in this subdialect occurs as follows: 1) in roots and indivisible stems, a hard vowel is used instead of the soft vowel that comes after [i]: *bican* «hay», *içmak* – lit. *içmək* «to drink», *xinjal* – *xəncər* «dagger»; 2) the change ɪ>i in positions next to back consonants: *kasi* «elevated place for sitting», Mid. Kum. *hasi*, *dagi*, Mid. Kum. *dagi* (an emphatic particle), Mid. Kait. *dagi*, *kariş* – *garış* «measurement between the thumb and little finger», *ariq* – *arığ* «thin», *karin* – *qarın* «belly», ul. *kashig* – *qasıq* «spoon», *sirga* – *sırğa* «earring», ul. *giragda* – *qıraqda* «on the street»; 3) the derivative four-variant suffix -cı is sometimes used in subdialect with only one variant -ci: *yalanci* // form. *allatanci* – *yalancı* «deceiver», form. *kizkanci* «greedy»; 4) as in modern Turkic languages, as well as in the languages of ancient written monuments, in the Terekeme dialect the sounds [u] and [ɪ] are used alternating: *qadın* – *qadun* «woman», *yastug* – *yastıq* «pillow», *yumurta* // *yumurtga* – *yımırta* // *yımirtga* «egg», *qamuş* – *qamış* «reeds», form. *buğda* «wheat»; 5) as part of borrowed words: *kasib* – *kasıb* «poor», *findıq* – *findıq* «hazelnut», form. *kasıb*; 6) vowel harmony is violated when using [i] instead of [ɪ] at the beginning of words with hard vowels: *ışığı* «sunny», *ilan* «snake». The reasons for the violation of labial-palatal harmony are as follows: 1) non-labial vowels, which are in the same position as labial consonants, become labial.

This phenomenon is especially noticeable in the subdialects of the Kumyk language, in particular, in the Terekeme subdialect: *tova* – *tava* «frying pan», *govalı* – *gavalı* «plum», *duvar* – *divar*, *narduvan* – *nardıvan* «ladder», *yarpuz* – *yarpız* «wild mint», *ayuv* – *ayı* «bear», *kapu* – *qapı* «gate», *hamusu* – *hamısı* «all», pad. *qarpuz*, tatl. *qrpuz* «watermelon», *samursaq*, ul. *samırsaq* – *sarımsaq* «garlic», *dernevuj* – *dırmaq* «rake»; 2) along with back consonants in the position, non-labial vowels accidentally acquire a labial character: *çalğu* – *çalğı* «braid», *baluq* – *balıq* «fish», ul. *sandug* – *sandığ* «chest». It is obvious that the violation of labial vowel harmony is also found in the Tere subdialects: *üfirdi* – *üfürdü* «blew», *uyaglisi* – lit. *uyahlısu* «his family» [9, 60]. In the Yangikent subdialect of the Kaitag dialect, the interrogative conjunction is formed only with one hard vowel [u]. And when the conjunction -mu is added to the stems containing hard or soft labial vowels, the harmony of both vowels and consonants is violated: *gəldimu?* «Has he come?», *salamu?* «Did he put it down?». The violation of vowel harmony in the words of the Ullubiyaul subdialect of the Kaitag dialect is due to the absence of vowel harmony variants in some affixes. Thus, the addition of the affixes *əcək*, - *ecek*, -*mək*, -*mek* causes a violation of palatal harmony: ul. *gələcək* – lit. *gelecek* «he will come», lit. *verəcək* – lit. *verecek* «he will give», ul. *biləcək* – lit. *bilecek*, «he will find out», ul. *girmək* – lit. *girmek* «to come in», ul. *üzmək* – lit. *üzmek* «to swim». As can be seen from the examples, back labial vowel harmony predominates in the dialects, while front labial vowel harmony predominates in the literary Kumyk language. Thus, the main phonological function of vowel harmony is to preserve a single sound melody as an integral part of the phonological structure of the word. The melodic structure of vowel harmony equally affects both vowels and consonants included in the sound complex: vowels affect the sound coloring of consonants, and consonants affect the coloring of vowels. The prosodic role of vowel harmony is to combine all sound elements into a single word. If a word is polysyllabic, then vowel harmony (whether labial or palatal) determines the word's meaning [4, 114].

Violations of vowel harmony are also observed in the Kazakh language, especially in borrowed words that do not obey the laws of vowel harmony. For example: *kitap* «book», *mugalim* «teacher», *divan* «sofa». However, when adding affixes of the Kazakh language to them, they adapt to the morphological system: *deputat-tar-ga*, *mugalim-der-ge*. In addition, our language exhibits deviations from the norm in the agreement of labial vowels both in speech and in writing. This leads to the convergence of the labial sounds o, ə, ʏ, ʋ (o, ö, ü, ü) with other labial elements in the following cases: 1) The sounds «o» or «ü» in the first syllable change the sound «y» in the second syllable to «ü»: *oryn* – *orün*, *qūdyq* – *qūdūq*. However, sounds such as «o» and «ü» do not affect the open vowel «a»: for example, *orman* «forest», *qūnan* «two-year-old». 2) The sounds o, ö or ü, ü in the first syllable turn the sound i in the second syllable into ü: *örık* – *örük*, *kūdık* – *kūdük*. 3) The



sounds *ö* or *ü* in the first syllable can change the vowel *e* in the second syllable to *ö*: *öleñ* - *ölöñ*, *kürek* - *kürök*.

This can be summarized and shown in the following diagram:

1. Converting a hard vowel to a labial vowel: - *o* - *y* - *ū*, - *ū* - *y* - *ü*. For example: *oryn* - *orūn*, *qūlyn* - *qūlūn*.

2. Converting a soft vowel to a labial vowel: a) *ö* - *ı* - *ü*, *ü* - *ı* - *ü*. For example: *körık* - *körük*, *kündık* - *kündük*. b) *ö* - *e* - *ö*, *ü* - *e* - *ö*. For example: *öleñ* - *ölöñ*, *kürek* - *kürök* [10, 16].

The substitution of labial sounds with palatal sounds is a normal part of speech, and we typically ignore it in writing. We consider labial and palatal consonants together to show that the principle of labial consonants is realized simultaneously with that of palatal consonants. From our point of view, it is more appropriate to consider labial harmony not as a separate phenomenon, but as part of a single labial-palatal harmony.

In our opinion, the presented data clearly illustrate the complexity of vowel harmony disruption in modern Turkic languages. As shown in the Terekeme subdialect and other Turkic languages (Kazakh, Kumyk), vowel harmony does not always strictly follow phonetic rules and may vary at the level of individual roots and affixes. It is particularly important to consider labial and palatal harmonies as a single interconnected process rather than separately. The interaction between vowels and consonants ensures the preservation of the melodic structure of words and conveys meaning, especially in polysyllabic words. Thus, violations of vowel harmony in modern Turkic languages are not random phenomena; they reflect a complex interaction of internal linguistic patterns, phonetic context, and historical evolutionary processes. Studying these phenomena is crucial for understanding the historical and structural development of the language. The idea of analyzing labial harmony as an integral part of an overall labial-palatal system is supported by several scholars who emphasize the interconnected nature of vowel harmony processes. According to van der Hulst and van de Weijer, vowel harmony functions «as a long-distance assimilation process governed by a language's internal phonotactic constraints» [11, 498]. This suggests that both palatal and labial features can simultaneously affect the structure of a word. In Turkish, for example, Göksel and Kerslake state that «vowel harmony is not only a phonological but also a morphological process» [12, 22], indicating that harmony patterns extend beyond simple sound matching and influence affixation and word formation. Kornfilt similarly notes that labial harmony «primarily affects high vowels, with the degree of rounding being determined by the vowel in the root morpheme» [13, 56], underscoring the dependency between root structure and harmonic behavior. Depending on the position of the labial vowel in the initial syllable, the occurrence of labial vowels in final syllables results in lip-based vowel harmony. This phenomenon is referred to as labial vowel harmony and is characteristic of all Turkic languages, with the exception of Uzbek. The degree of labial vowel harmony varies among the Turkic languages. In Turkic languages where the law of labial vowel harmony prevails, the influence of the labial vowel in the preceding syllable on the vowel of the final syllable differs. In some Turkic languages, the labial vowel in the preceding syllable affects all vowels in the final syllable, while in others it influences only open or closed vowels. The effect of labial vowels on subsequent vowels also depends on the number of syllables. In some languages, the influence of labial vowels extends to all affixes; in others, only to the root of the word. In certain cases, it affects only one affix and does not influence the others. The nature of labial vowel harmony is much more complex than purely linguistic. Its influence on other syllables within a word varies across Turkic languages. A large number of words with single vowels creates a specific articulatory base that ensures the stability of labial vowel harmony in grammatical word forms. The absence of such a base leads to instability in labial vowel harmony. This example requires a thorough study of the phonetic structure of Turkic languages.

Turkologists have consistently raised the issue of the primacy of palatal and labial harmony. Can the idea of the primacy of palatal harmony in Turkic be supported by opposing vowel complexes within roots as either palatal or labial in nature? Moreover, as we will see below, even in root words with multiple vowels, as well as in word forms containing derivational and inflectional

affixes, labial harmony appears to be quite unstable, often violated (see the dissonance in literary Uzbek) [14]. Root words and unsegmentable bases in modern Turkic languages that consist of multiple vowels are primarily characterized by the stability of palatal vowel harmony, that is, all vowels in such clusters are either consistently front or consistently back vowels. For example: *qalyn* «thick», *ayla* «cry», *barmaq* «finger», *tajaq* «stick», *tupraq* «soil», *dünen* «a two-year-old horse», *ögren* «learn», *semiz* «fat», etc. Analysis of lexemes shows that vowel harmony in root words often exhibits labial harmony as well. For example: *burun* «nose», *bulut* «cloud», *çolpon* «Venus», *uzun* «long», *örtök~ördök* «duck», *büdin~bütiin* «whole», *bödönö* «quail», *qujruq* «tail», *qulun* «foal», *köbölök* «butterfly», *tülkü* «fox». It is important to note that the Kazakh equivalents of these words are pronounced not according to orthography but as *mürün*, *bülüüt*, *üzün*, *üyörök*, *bütiin*, *bödönö*, *qüyrüq*, *qülün*, *köbölök*, *tülkü*, respectively. However, we also observe that after the first labial vowel: (a) a palatal consonant may occur, with palatal harmony preserved, i.e., a hard labial consonant is followed by a hard palatal consonant, and a soft labial consonant is followed by a soft palatal consonant; and (b) a labial consonant may occur, but with a close consonant following an open consonant, or vice versa, such phenomena that violate harmony are also widespread. Such phenomena can be observed within a single language or across languages. For example: Altai, Kyrgyz: *očok* «hearth»; Alt. *Mojyn* ~ Kyr. *mojun* «neck» *ojyn* ~ *ojun* «game», *odyn* ~ *otun* «firewood», *budaq* ~ *butaq* «branch», *qulaq* «ear», *uzaq* «far/long», etc.

Though these languages rank high in vowel harmony according to Bogoroditsky's scale, the instability of labial harmony is evident. Pan-Turkic examples: *köbür*, *köbük*, *jürek* (Kyr. *jürök*), *ölüm*, *börü~böri*, etc. We observe that initial syllable labiality is preserved in Altai and Kyrgyz, but disappears in other Turkic languages when palatal harmony is retained: Alt. *boroyon*, Kyr. *boroön* ~ gen. Turkic *boran*; Alt., Kyr. *orto* ~ gen. Turkic *orta*; Alt. *köbölök*, Kyr. *köpölök* ~ gen. Turkic *köbelek*; Alt., Kyr. *bödönö* ~ *bödene*; Alt. *örtök*, Kyr. *ördök* ~ gen. Turkic *ördäk* «duck»; Alt., Kyr. *özök* ~ *özäk* «core»; Alt. *öpkö*, Kyr. *öpkö* ~ *öpkä*, *ökpä*; Alt., Kyr. *börü* ~ *böri*. In contrast, some Kyrgyz words have lost labial harmony, unlike in other Turkic languages, including Altai: Kyr. *kürök* ~ gen. Turkic *kürek*, *jürök* ~ *jürek*, *kürön* ~ *küren*, *tülö-* ~ *tüle-*, *üzönü* ~ *üzeni*, etc.

However, the question of why some words retain labial harmony in certain languages, while others lose it, establishing correspondences in particular positions across languages, remains open. This could be related to word-formation models that avoid homonymy by encoding specific meanings into particular phonemic structures (compare: *uzun* «long» vs. *uzaq* «distant», *uzan* – «to work, do business», Kyr. *ulaq* «kid/goat» – *uluq* «noble», *unut* «forget» – *unat* «persuade»). It may also relate to synchronic and historical patterns of stress, rhythmic accents, or quality of adjacent consonants. Experimental studies in this area may greatly aid in resolving these questions. If phonemic complexes are studied in natural speech, rather than isolated words, results could be more productive. For now, we may tentatively conclude that in Turkic roots, palatal harmony is systematic and stable, whereas labial harmony is more sporadic and less consistent. This pattern also appears in Old Turkic inscriptions. For example: *adaq* «foot», *adaş* «companion», *ary* «bee», *älig* «hand», *älik* «deer» and *älik/ilik* «ruler» (cf. Kyr. *ulaq* «kid» – *uluq* «noble/ruler»), *ämdi* «now», *ärig* «council», *aryγ* «clean; spring», *barym* «property», *borluq* «vineyard» (<bor «wine» + suffix -luk), *kičä* «evening», *kiräk* «necessary» (cf. *kirü* «backwards; west» and *ilgärü* «forward»), *könül* «heart», *köpük* «foam», *obut* «shame», *oğul* «son», *oğur* «situation», *ordu* «camp», *orraq* «seat», *ortu* – *orta* «middl», *otağ* «tent», *otuz* «thirty», *ödläk* «time», *ödrüm* «select», *odüq* «request», *ögdiim* «praised», *ögir* – «to praise», *ögür* «herd», *ögir* – «to rejoice», *ördäk* «duck» (Kyr. *ördök*), *ulaγ* «connection», *uluγ* «noble», *ulam* «constantly», *urug* «seed, tribe», *uruq* «thread», *uram* «street», *ükür* «herd», *üzüt* «soul», *üdik* «desire», etc.

According to S. Malov's Monuments of Old Turkic Writing (1951), there are no examples in the dictionary where a syllable with *ö* is followed by another syllable with *ö*. Therefore, while some modern Turkic languages (especially Kyrgyz) show stable use of labial harmony, sometimes in conjunction with palatal harmony, the irregular application of labial harmony implies that it may be a later development. This is possible. However, the diversity observed in both ancient written sources and modern dialects suggests that two types of vowel harmony existed during the proto-

Turkic period: palatal harmony (more consistent and systematic) and labial harmony (less consistent, more variable). This raises further questions regarding the origin of vowel harmony in Turkic from an Ural-Altaic perspective, particularly concerning the initial stages of harmony in the Altaic languages.

M.Cherkassky, in his work *Turkic Vocalism and Synharmonism* (Moscow, 1965), addressed this issue and, drawing on contradictions within the law of vowel harmony, traced the roots of his reasoning to the early structural forms of the Turkic languages. Summarizing his view, he made the following conclusion: "...based on the historical and phonological interpretation of the facts of modern Turkic vocalism, the general trajectory of the typological evolution of the Turkic languages appears as follows: from basic root juxtaposition (i.e., 'proto-Altaic' polysynthesism), through the functional differentiation of morphemes with the accentuation of the semantically dominant morpheme (Altaic-type agglutination), to the organic unification of morphemes and the emergence of fusion elements (the 'Turkic' stage)". In modern Turkic languages, the first and second stages are only preserved as relics. The third stage reflects an active, though still partial, tendency. According to some scholars, among the vowel harmony features such as palatal and labial, palatal harmony is considered ancient.

V. Kotwicz also considered labial harmony a later development: «The specific conditions under which the law of labial assimilation appears long justified the view that it began to operate relatively late, especially in the Turkic languages» [15, 100]. This opinion, particularly in relation to the Yakut language, was not shared by V.Radloff. V.Radloff argued that both palatal and labial assimilation were present from the earliest stages of Turkic. Kotwicz quotes V.Radloff: «Labial assimilation was characteristic of the Turkic language from its earliest stages, just as palatal assimilation, i.e., the law of consonant harmony, had already been fully developed and firmly established. However, over time, labial assimilation underwent various transformations and gradually weakened across different dialects» [14, 100]. Even though Orkhon texts show systematic palatal harmony, they also demonstrate many violations of labial harmony. Scholars like W.Grønbech, P. Melioransky, and H. Pedersen thus supported Betlingk's skepticism. In our opinion, V.Radloff's view is absolutely correct, since the violation of labial harmony in the Orkhon inscriptions does not negate their originality; on the contrary, it confirms it. V.Kotwicz concludes: «V.Radloff's view about the ancient origin of labial assimilation is highly plausible and, in any case, cannot be dismissed. The data from other Altaic languages contain nothing that contradicts this opinion» [15, 102]. According to V.Kotwicz, it would be a mistake to rely solely on the data from the Orkhon inscriptions when studying the emergence of labial harmony, at least until new evidence becomes available. In this regard, V.Kotwicz, writes: «Though Orkhon inscriptions reflect an archaic state of the Turkic languages, contrary to H. Pedersen and others, this is not the proto-Turkic state; rather, the vowel system shows signs of serious modification. One such change was the reduction in the use of *o~ö*» [15, 101]. V.Kotwicz identifies several factors that contributed to this limitation: «If you look closely at the vocal system of the languages of both groups, you can easily see that the sound *u* is a strong competitor of *o*: for example, one word in one dialect has *o*, in another *u*, and as a result of such rivalry, *u* appears much more often than *o*. He continues his argument with the following statement: «As a result, *o* in the last syllables was displaced, and this state, according to the generally accepted opinion, was characteristic of the language of the Orkhon inscriptions and, to no lesser extent, also of the most ancient monuments of the Mongolian language». In the Tungusic languages, this issue is somewhat different. In this regard, V.Kotwicz made the following insightful comment: «Here, there was apparently no rivalry between *o* and *u*, although *u* also appears much more often than *o* in general. In any case, in all dialects we find *o* in older texts not only in roots but also in suffixes. It can even be assumed that the Tungusic languages had some influence in this regard on the neighboring Turkic (Yakut, Oyrot) and Mongolian (Buryat) languages, and that in them, quite a long time ago, perhaps several centuries ago, *o* and *ö* began to reappear in suffixes. He also added: «This trend later spread to other languages: Kyrgyz, Kazakh; and *o* regained its older role more strongly in Mongolic contexts» [15, 101–102]. We agree with this assessment, because the appearance of *o~ö* in suffixes

in Kyrgyz, Yakut, and Altai was likely influenced by non-Turkic languages and does not occur in Orkhon-Enisei or other Turkic languages. According to many turkologists, palatal harmony is a linguistic phenomenon that emerged before the unification of the Turkic languages. At that time, the structure of the language changed, words began to merge with each other, and the previously common monosyllabic words became less frequent. Due to the absence of strong stress in the language, vowel harmony became the main means of word agreement. Throughout the long history of language formation and development, palatal and labial harmonies have undergone various transformations, appearing in different forms across languages and dialects. In some languages, they seem lost; in others, they have been preserved or evolved. These processes primarily lead to the weakening of consonants, their hardening and softening, and as a result, a system of dissonant vowels begins to form in the language. For a deeper understanding of these changes and features, the phenomenon of vowel harmony was chosen as a special object of study. In this regard, the works of prominent Turkologists such as N.K. Dmitriev, N.Kh. Olmesov, N.I. Ashmarin, E.D. Polivanov, V.V. Reshetov, A.T. Kaidarov, A.M. Shcherbak, E.I. Azizov, and B.Kh. Todayeva were comprehensively analyzed. The scientific insights and theoretical conclusions of these scholars allow us to thoroughly describe the historical evolution of vowel harmony and its manifestations in individual Turkic languages, forming the main methodological basis of this research.

Palatal and labial vowel harmony in Turkic languages exhibit different historical trajectories. Palatal harmony, associated with front vowels, has been stable and systematic since the earliest stages, whereas labial harmony emerged later and shows considerable variability across dialects. The Orkhon inscriptions confirm the stability of palatal harmony but reveal frequent violations of labial harmony, which, according to V. Radlov and V. Kotwicz, does not contradict its ancient origin. Modern dialects, such as Kazakh, Kyrgyz, and Yakut, demonstrate a resurgence of labial harmony, often influenced by neighboring languages. Thus, the development of vowel harmony reflects both the internal structural patterns of Turkic languages and the impact of historical and dialectal factors.

It is well known that the language of any people is closely connected with their history. If the history of any people who have formed a nation today consists of distinct phenomena and periods, then their languages also follow their own laws throughout the course of development. Like other national languages, the languages of the Turkic peoples have undergone a long and complex historical evolution. A significant historical factor such as the disintegration of the Turkic people into various ethnic groups also affected their main languages, which had been continuously developing for centuries. As a result, these languages underwent various phonetic, morphological, and semantic changes and eventually fragmented into the distinct languages of individual ethnic groups. Each Turkic language that emerged from this disintegration began to develop with its own characteristics, internal laws, and unique identity. Therefore, no matter how much these languages change, they retain elements of the ancient language and the foundational properties that shaped their formation.

Many turkologists point out that the divergence of languages and dialects is always accompanied by their interaction and mutual influence. Therefore, each modern language or dialect should not be viewed as a uniform and homogeneous entity of a proto-language state, but rather as a complex set of forms and features that have undergone various stages and changes.

The division of the main language into separate Turkic languages also leads to changes in the sound system. One sign of the hereditary nature of the ancient language is reflected in the correspondence of sounds. The sound correspondences found in any Turkic language help determine which variants appeared earlier and which came later. These correspondences cause changes not only in individual words in terms of their specific features but also contribute to the classification of the semantic background of related parallels originating from the same root. As academician A.Kaidarov emphasizes, this remains one of the unresolved problems of comparative-historical phonetics [7, 84-85].

Consonance in Turkic languages is a fundamental structural-typological phenomenon with its own distinct characteristics.

The law of harmony is preserved to varying degrees in all Turkic languages and unlike palatal harmony, which is consistently present, labial harmony manifests differently across languages. Although the law of harmony is evident in ancient Turkic written monuments, there are also instances where it is violated. Let us examine cases of vowel harmony violations in the language of these written monuments from a comparative perspective.

Violations of law of harmony are also found in the language of the Orkhon-Yenisei monuments. For example, in the monuments of Kultegin, Bilge Khagan, Moyunchur, Uyuk-Turan, and Ongin, alternations such as  $u > i$ ,  $\ddot{u} > i$  occur, resulting in violations of labial consonance of vowels.

In the mentioned monuments, the following words show cases of labial harmony disruption as a result of sound changes: *bolmys* – *bolmus* «existed», *kuchin* – *kuchun* «strength»; *bunsiz* – *bunsuz* «boundless, many, abundant»; *bunsyz* «sad, without sorrow»; *olurtym* – *olurtum* «I sat, sat on the throne», *oglyn* – *oglyn* «son», *körti* – *körtu* «saw»; *ogushym* – *ogushum* «my family, relative»; *tüsdi* – *tüsdu* «joined»; *tutdy* – *tutdu* «held»; *sunusdim* – *sunusdum* «I fought»; *kunchiyim* – *kunchuyum* «my lady»; *yontym* – *yontum* «my horse»; *süsiz* – *süsuz* «without soldiers»; *kuly* – *kulu* «slave»; *qatuny* – *qatuny* «wife».

The fact that labial harmony was not particularly characteristic of the Talas monuments indicates that, in most cases, the second syllable contains a stressed vowel (e.g., *oğly* – *uly*). First of all, it should be noted that most consonants in ancient Turkic written monuments had both hard and soft variants; that is, they were marked in two distinct ways. One symbol corresponds to hard vowels, the other to soft vowels. The presence of two variants of consonants in the ancient Turkic alphabet serves as a valuable tool for reconstructing the original pronunciation of words found in these written monuments. In the phonetic system of Turkic writing, two types of vowel harmony are manifested: palatal and labial vowel harmony. As in modern Turkic languages, consonance in the language of ancient Turkic writing is characterized by the influence of the preceding vowel on the following one; that is, there must be either uniformly hard or uniformly soft vowels in a word. For example: *kagan*, *kara*, *ulug* «big»; *kary* «old»; *kany* «where», etc.

When suffixes are added to the root, the law of consonance is observed: *kagan+y*, *yol+y* «road», *sub+sziz* «waterless», *on+inch* «tenth»; and when accompanied by soft vowels: *eki*, *elig* «fifty», *kisi* «person», *begler* «beys», *bedizchi* «bedizchi, stone master», *bilig* «skill, knowledge», *ekinti* «second», *bitik* «writing». The use of open-labial vowels «o» and «ö» is observed only in the first syllable of the word [7, 71]. This phenomenon is also observed in modern Turkic languages. For example, in Gagauz, Turkic Karaim, and Kumyk, the labial vowels «o» and «ö» are often found only in the first syllable of a word. In addition to the above-mentioned languages, in Azerbaijani, the suffixes attached to labial vowels are only short labial vowels. For example: *kork-u-lu* «terrible», *köprü-nün* «of the bridge» (gag. lang.); *otuz* «thirty», *öküz* «ox» (tur. lang.); *kol-um* «my hand», *kör-sün* «let me see»; *uvl-um* «my son», *yürü-dyum* «I walked» (kar. lang.); *oymak* «oymaq», *öğüz* «ox», *öğüz-übuüz* «our ox» (kum. lang.); *bol-bolluq* «abundance, wealth», *göl* – lake, *gölümüz* «our lake» (Azerbaijani).

When considering cases of vowel harmony in the languages of written monuments, correspondences such as  $u > i$ ,  $\ddot{o} > i$ , and  $i > \ddot{o}$  were revealed, which, in our opinion, indicate that this harmony is related to close vowels.

Vowel harmony in Turkic languages is a significant historical phenomenon that reflects the structural principles of these languages. The violations of vowel harmony observed in the Orkhon-Yenisei monuments (e.g.,  $u > i$ ,  $\ddot{u} > i$ ) indicate that labial harmony was not always consistent, but this does not negate its ancient origins. While palatal harmony remained stable and systematic, labial harmony underwent various changes across different dialects over time. When suffixes were added to word roots, the rules of vowel harmony generally preserved the phonetic and morphological consistency of words. Moreover, instances of vowel harmony disruptions and various phonetic transformations reflect the historical evolution of the languages, their division into different ethnic groups, and interactions with neighboring languages. This phenomenon is important not only from a historical perspective but also for the dialectological study of modern Turkic

languages. In other words, vowel harmony serves as a historical marker of linguistic unity within Turkic languages and illustrates the individual development paths of each language.

At present, there is a growing scholarly trend to study Turkic languages through the lens of ancient Turkic and medieval written monuments, precisely because these historical traditions continue to resonate in modern speech. The Kazakh people, like other neighboring Turkic ethnic groups, trace their heritage back to these early Turkic eras, making this line of inquiry particularly relevant for understanding the formation of modern Turkic languages. Although the lexical and grammatical structures of modern Turkic languages testify to common roots and similarities inherited from written monuments, significant phonetic divergences also exist. These differences are natural: each language, despite sharing a common ancestor, developed over centuries in its own distinct sociocultural context - different origins, traditions, educational systems, and ways of life have given rise to unique linguistic features. As a result, the phonetics of Kazakh and other Turkic languages must be studied not just as derivatives of a proto-language, but as complex systems shaped by centuries of evolution. In conclusion, as has been pointed out, «compared to other areas of linguistic science, the phonetics section in Kazakh language stylistics remains one of the least studied fields» [16. 2]. Thus, the research topic we are addressing is both timely and essential for advancing modern Kazakh linguistics

## CONCLUSION

This review article is devoted to a comparative analysis of vowel harmony and the law of singormanism in the dialects of modern Turkic languages, namely Kazakh, Uyghur, Uzbek, Kumyk, and Azerbaijani. The study provides a comprehensive examination of the historical-phonetic development of these languages, dialectal variation, and internal regularities of their sound systems. The methods employed include articulatory-acoustic and auditory analysis, comparative analysis, and the study of theoretical data. This integrated approach allowed for precise description of dialectal features, a deeper understanding of the interaction between vowels and consonants, and confirmed the initial hypothesis that the phonetic patterns of these languages follow a unified system. The review revealed that the vowel harmony system is largely preserved across all Kazakh dialects, indicating phonetic stability and internal linguistic harmony. In certain Uyghur dialects, harmony is weakened but partially maintained in rural and non-standard variants. In Uzbek, vowel harmony is primarily disrupted at the morphological level, whereas in Kumyk and Azerbaijani only traces of historical labial and pharyngeal consonants remain. These findings illustrate the dialectal development of each language and confirm the universal nature of the vowel harmony law in Turkic languages.

The law of singormanism also plays a critical role in the phonetic system. According to previous research, N. Dmitriev and A. Kaidarov interpret singormanism as the mutual influence of consonants, emphasizing its phonetic significance. V. Reshetov and V. Kotvich consider this law from the perspective of structural principles and linguistic economy, while B. Todaeva and M. Cherkassky highlight its historical and morphological aspects. Thus, the law of singormanism can be regarded as a fundamental principle ensuring consonant coordination and maintaining the internal harmony of the language. Overall, vowel harmony and the law of singormanism are decisive in the dialects of Turkic languages. They reflect the phonetic, morphological, and historical development of languages, maintain phonetic coherence, and facilitate articulation. Scientific description of dialectal features allows a deeper understanding of the internal patterns of Turkic languages, clarification of historical-phonetic processes, and identification of universal and language-specific characteristics of consonants. The practical and scientific significance of this study is substantial. The findings can be applied to the study of phonetic systems of dialects, consolidation of linguistic norms, and language teaching. Future research may expand with quantitative analysis of harmony and singormanism, audio material processing, and comparative-typological studies. Additionally, the results contribute to the advancement of Turkology and

general linguistics, validation of historical development patterns, and the establishment of a theoretical basis for dialectology.

In conclusion, this review demonstrates the crucial role of vowel harmony and the law of singormanism in the dialects of modern Turkic languages. The data comprehensively describe the phonetic, morphological, and historical development of these languages, facilitate the generalization of research findings, refine future research directions, and deepen the understanding of the internal patterns of Turkic languages. This study provides new impetus for the development of Turkology and linguistics.

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**Қазіргі түркі тілдерінің диалектілеріндегі дауысты дыбыстар үйлесімнің ерекшеліктері**  
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*Бұл мақалада түркі тілдеріне тән сингармонизм құбылысына жан-жақты талдау жасалады. Авторлар сингармонизмнің фонетикалық, фонологиялық, морфологиялық және просодикалық деңгейлерде қызмет етуін қарастырып, оның жалпы дыбыстық жүйедегі орнын нақтылайды. Зерттеу сонымен қатар сингармонизмнің тарихи дамуын және оның қазіргі диалектілердегі көріністерін қамтиды. Нақты мысалдар негізінде қазақ, құмық, әзербайжан және өзбек тілдеріндегі сингармонизм заңының сақталу дәрежесі көрсетіліп, лексикалық кірме сөздер мен тілдер арасындағы өзара ықпал сияқты оның бұзылу себептері айқындалады. Лабиалдық және палаталдық сингармонизм, дауысты дыбыстардың позициялық алмасулары мен дыбыстардың ассимиляция үдерістері талданып, олардың артикуляциялық және акустикалық сипаттамалары анықталады. Сингармонизмнің грамматикалық категорияларды қалыптастырудағы және тілдік жүйенің тұтастығын қамтамасыз етудегі рөлі ғылыми тұрғыдан негізделіп, бұл құбылыстың түркі тілдерінің генетикалық бірлігін бейнелейтін негізгі ерекшелік екені дәлелденеді.*

*Мақалада сондай-ақ бірбуынды формалардың эволюциясы, мәселені зерттеудегі түрколог ғалымдардың үлесі, сондай-ақ тілдік дамудың ішкі заңдылықтарына байланысты диалектілік деңгейде сингармонизмнің бұзылу себептері де қарастырылады.*

*Кілт сөздер: түркі тілдері; сингармонизм; диалектілер; фонетика; морфология; семантика; ассимиляция; говор; артикуляция; дыбыстар; моносиллаб.*

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### **Особенности гармонии гласных в диалектах современных тюркских языков**

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*В данной статье представлен всесторонний анализ феномена сингармонизма, характерного для тюркских языков. Авторы рассматривают функционирование сингармонизма на фонетическом, фонологическом, морфологическом и просодическом уровнях и уточняют его роль в общей звуковой системе. Исследование также охватывает историческое развитие сингармонизма и его проявления в современных диалектах. На конкретных примерах показана степень сохранности закона сингармонизма в казахском, кумыкском, азербайджанском и узбекском языках, а также выявлены причины его нарушения, такие как лексические заимствования и межъязыковое влияние. Анализируются лабиальный и палатальный сингармонизм, позиционные чередования гласных и процессы ассимиляции звуков, определяются их артикуляционные и акустические характеристики. Научно обоснована роль сингармонизма в формировании грамматических категорий и в обеспечении целостности языковой системы; доказано, что данный феномен является ключевой особенностью, отражающей генетическое единство тюркских языков.*

*В статье также рассматривается эволюция односложных форм, вклад тюркологов в изучение проблемы, а также причины нарушений сингармонизма на диалектном уровне в связи с внутренними закономерностями языкового развития.*

*Ключевые слова: тюркские языки; сингармонизм; диалекты; фонетика; морфология; семантика; ассимиляция; говор; артикуляция; звуки; моносиллаб.*

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