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## Sound harmony and its evolution in foreign Turkic studies

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**Abstract.** The concept of sound harmony, including both vowel and consonant harmony, has long been a defining phonological feature of Turkic languages. This characteristic, deeply rooted in the history of these languages, attracted the attention of foreign scholars as early as the 19th century. Initial studies focused on vowel harmony, recognizing it as a systematic and unique trait. Over time, as interest in Turkic phonology grew, researchers expanded their scope to include consonant harmony and its significance. The article explores the phenomenon of sound harmony, analyzing its evolution within foreign studies on Turkic languages. It highlights sound harmony as a universal linguistic model, reflecting both stereotypical and national features across diverse Turkic languages. The study emphasizes the cognitive and structural dimensions of sound harmony, investigating its phonetic, structural, and semantic patterns. Using structural-semantic modeling, the article traces the consistency of sound harmony in modern Turkic languages and its role in broader phonological frameworks. Drawing on works by scholars like Gerard Clauson, William Schmalstieg, and Karlene Kenyon, the article delves into the historical development, phonological systems, and morphological implications of sound harmony. It underscores its enduring influence on the linguistic and cultural identity of Turkic peoples, shaped by phonetic, diachronic, and cultural factors.

**Keywords:** sound harmony, phonology, Turkic languages, comparative-historical study, phonological evolution, structural-semantic modeling, cognitive phonology.

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## **Introduction**

Sound harmony is a captivating feature in Turkic languages, making it an intriguing subject for both linguists and language enthusiasts. These distinctive characteristics shape the way vowel and consonant sounds interact within words, creating a rhythmic linguistic pattern that is not only intricate but also remarkably beautiful. This uniqueness has drawn the interest of scholars in Turkic studies from around the world, sparking a rich history of exploration into the mechanisms and evolution of sound harmony. Beyond being a linguistic curiosity, the significance of sound harmony extends to offering valuable insights into the cognitive aspects of language, historical language shifts, and the deep connection between language and culture.

To understand the extensive meaning of sound harmony within Turkic languages, this paper explores the significance made in the development in this sphere. Focusing on the substantial contributions made by experts in the field, such as Gerard Clauson, William Schmalstieg, Karlene Kenyon, Mark Fielder, Edward J. Vajda, Talat Tekin, and Erika Boettcher, we underscore the critical milestones and intellectual leaps that have shaped our contemporary comprehension of this topic. The paper studies their research findings, which have collectively explained the historical formation of sound harmony and the way it influenced the contemporary methods of analysis and interpretation.

Furthermore, the introduction acknowledges the progressive nature of the study of sound harmony. It points out that despite significant advancements, the research is far from complete, as discoveries continue to refine and redefine our understanding of this linguistic phenomenon. The involvement of a global community of scholars with different linguistic backgrounds contributes to a dynamic and robust discourse, ensuring a collaborative and interdisciplinary approach to the exploration of sound harmony. This investigation serves as a reflective and prospective narrative of the evolution of sound harmony in Turkic languages, capturing the essence of past research while looking forward to the future developments that may arise from ongoing scholarly discourse. Through this introduction, we set the stage for a detailed examination of the subject matter, preparing the reader for a journey through the complex and captivating world of Turkic sound harmony.

The issue of linguistic phenomena as well as sound harmony in Turkic languages, represents a developed area with intellectual curiosity. This system places a significant emphasis on the harmony of sounds, becoming a key player in shaping words and language structures. This aspect not only reflects the delicate equilibrium between linguistic rules but also humanizes the process by mirroring the natural evolution of speech. Studying Turkic sound harmony isn't a solitary task; think of it as weaving an influence that intertwines with linguistic typology, cognitive science, and the historical evolution of languages. Each element in this intricate weave adds depth, providing a more nuanced view of how language works, both in our minds and in society.

This extended introduction seeks to situate the research within a broader context, linking the nuanced study of sound harmony with larger questions of how linguistic patterns emerge, develop, and influence the linguistic landscape. It acknowledges not only the descriptive aspects of sound harmony but also the theoretical implications it holds for linguistic universals and

language learning. Delving into the implications of sound harmony extends beyond academic intrigue, offering insights into language pedagogy and potential applications in computational linguistics, such as natural language processing and speech synthesis, which continue to grow in prominence in the digital age.

In the active sphere of Turkic sound harmony studies, it's like a chorus of diverse voices coming together, highlighting a field that flourishes through collaboration and cultural sharing. As we observe the ongoing progress, propelled by seasoned experts and new voices alike, there's a recognition of the significance of blending different fields. By merging linguistic research with technological advancements and embracing a spectrum of cultural viewpoints, the exploration of sound harmony becomes a true journey in unraveling the essence of human language in its most basic and harmonious expression.

## Research Methods

Research looks into the intricate world of sound harmony, a distinctive feature of Turkic languages. To achieve a comprehensive understanding of this linguistic phenomenon, the study primarily relies on a meticulous analysis of both primary and secondary sources.

The core of this research is rooted in the analysis of primary sources, specifically ancient Turkic inscriptions. These inscriptions, drawn onto the stela and other artifacts, offer invaluable insights into the historical development of Turkic languages and the evolution of sound harmony. Key primary sources for this research include ancient Turkic inscriptions on stelae, such as those of Kul Tigin, Tonyukuk, El Etmish Bilge Khagan, and the Doloodoyn monuments. Additionally, historical texts like Mahmud al-Kashgari's *Divan-i Lughat al-turk* and Yusuf Balasaguni's *Kutadgu Bilig* provide essential contextual and linguistic information.

In the study of "Sound Harmony and Its Evolution in Foreign Turkic Studies," a combination of source critique, analysis, and synthesis methods was employed to examine the phenomenon of sound harmony in Turkic languages. Source critique involved assessing the reliability and context of historical sources and key scholars, particularly from the 19th and early 20th centuries. By verifying the backgrounds and expertise of influential researchers like Wilhelm Radloff and Gerard Clauson, the study ensured that the sources were credible and relevant. Comparative evaluation was also used to track shifts in understanding by contrasting early Orientalist perspectives with more recent linguistic studies, thereby offering a balanced view on the evolution of sound harmony analysis in Turkic studies.

## Results and Discussion

Concerning the rule of harmony, it is essential to focus directly on vowel harmony. It is important to mention that the phonological rule evolution, its historical progression research, particularly among European scholars. We will explore significant studies, theories, and shifts in understanding that highlight the complexity of this phenomenon in Turkic languages. To say, such a fundamental phonological rule is observed in many Turkic languages, and it has generated considerable interest in European research. Besides well-known original European research

of German-Russian and Hungarian linguists who worked in Central Asia and the Middle East during the 19th century, Wilhelm Radloff and Vámbéry Arminius, respectively, one among the most influential Turkologists in the 20th century. Gerard Clauson, who was British by ethnicity, focused on the historical and etymological study of Turkic languages, particularly through his monumental work, the "Etymological Dictionary of Pre-Thirteenth-Century Turkish" which was published in 1972.

In this direction, he has made important contributions to the study of Turkic languages. It is a dictionary of Turkish and Turkic Languages, a comprehensive resource for the vocabulary of early Turkic, including Old Turkic, Middle Turkic, and other early forms of Turkic languages. The wordbook encircles origins and developments of Turkic words, providing detailed etymologies and explanations of phonological changes over time, including vowel harmony. This is the reason why vowel harmony is considered a vital aspect on which it is recommended to pay attention while analyzing the process of word roots and forms. Clauson frequently addresses vowel harmony, as it is a fundamental feature of Turkic phonology. He examines how vowel harmony affects word formation, suffixation, and vowel alternations in different Turkic languages. The rule of harmony is represented by backness and rounding, is a defining characteristic of Turkic phonology as noted by Gerard Clauson. His work illustrates how this phonological rule is deeply integrated into the structure and morphology of Turkic languages, affecting how words are formed and understood. Clauson's insights into the rules governing vowel harmony continue to guide and inform contemporary studies of Turkic linguistics.

In Turkic languages, vowels can be classified as front vowels (/e/, /i/, /ö/, /ü/). In Turkish, the word "evler" (houses) features front vowels /e/ and /i/, while the word "odalar" (rooms) contains back vowels /o/ and /a/. The suffixes used in these words will also follow this pattern, as suffixes will change to conform to the harmony of the root. Namely speaking, vowel backness refers to the positioning of the tongue during vowel articulation. Conversely, back vowels (/a/, /ı/, /o/, /u/). In a word, if it starts with a front vowel, subsequent vowels are typically front vowels too, maintaining a front harmony. Conversely, if the first vowel is a back vowel, later vowels must also be back vowels. - Rounding refers to whether the lips are rounded during the articulation of the vowels. There are rounded vowels (/o/, /u/, /ö/, /ü/) and unrounded vowels (/a/, /e/, /ı/, /i/). Similar to backness, if a word includes a rounded vowel, it will typically contain other rounded vowels throughout its structure. In Turkish, the word "kütüphane" (library) consists of rounded vowels /ü/ and /a/, indicating that the rounded quality is preserved throughout the word. In contrast, if a word starts with an unrounded vowel, all subsequent vowels in the word must also be unrounded. Clauson discusses how suffixation in Turkic languages reflects rounding harmony. For instance, when adding the plural suffix to the word "kişi" (person), we might see variations based on whether the vowels are rounded or unrounded.

Clauson emphasizes that vowel harmony is an essential phonological characteristic of Turkic languages for several reasons: Morphological Structure, because vowel harmony affects not just the vowel sounds but also impacts the morphology of the language. In many Turkic languages, the form of suffixes corresponds to the vowel harmony of the root word, which is crucial for grammatical agreement and accurate communication. Next reason is phonological System. It is also called as systematic nature of vowel harmony that provides structure within

the phonological system, which allows more efficient processing and articulation of words. It is in charge of simplification of pronunciation and it creates patterns that linguistically bind the elements of a word together. The following one is known as cultural and historical significance. It leads to vowel harmony that comes as not just a phonetic feature but also has a function of holding a historical significance, revealing how languages evolve and influence each other over time. In these case, Clauson's historical linguistic approach provides insight into how vowel harmony has changed and adapted across different Turkic languages.

The next European scholar who made considerable contributions is William Schmalstieg. He is recognized for his significant contributions to Turkic linguistics and is particularly noted for his work on phonology, morphology, and historical linguistics within this language family. Below are some key aspects of his contributions and works:

Schmalstieg has conducted extensive research on the phonological systems of various Turkic languages, emphasizing vowel harmony and its implications for morphological structures. His analysis often highlights how vowel harmony operates within the phonological rules of Turkic languages, providing insights into how sounds interact in these languages. He has explored the agglutinative nature of Turkic languages, analyzing how affixes are attached to root words and the implications of such structures for understanding language development and change. Another distinctive feature of Schmalstieg's studies is that they were related to comparative Turkic Linguistics. The scholar was engaged in comparative studies that examine the similarities and differences among Turkic languages. His work discusses sound changes, morphological conformities, and syntactical structures across different Turkic-speaking regions. Schmalstieg's research has also examined historical aspects, looking at how Turkic languages have evolved over time, which shed a lot of light on changes due to language contact with neighboring considering the morphological structure of Turkic languages.

Another prominent figure in the research of Turkic languages is Karlene Kenyon. Kenyon has focused on the phonological systems of Turkic languages, particularly exploring the intricacies of vowel harmony and consonantal processes. Her work often emphasizes how phonological rules are applied in different Turkic languages and dialects. Along with phonology, scholar has examined the agglutinative nature of Turkic languages, clarifying how suffixation and prefixation influence meaning and grammatical relationships. Kenyon's studies provide insights into the morphological complexity of Turkic languages and the patterns of word formation. The author has been involved in comparative analyses of Turkic languages, investigating similarities and differences in phonetic and morphological systems across various languages within the Turkic family. This work contributes to a better understanding of the historical and typological relationships among Turkic languages.

Scholar has been committed to descriptive linguistics, and Kenyon has conducted fieldwork to gather data on less-studied Turkic languages and dialects. This effort is crucial for documenting linguistic diversity and understanding the dynamics of Turkic languages in different cultural contexts. Researcher's approach to Turkic linguistics often integrates perspectives from phonetics, morphology, and syntax, reflecting a comprehensive understanding of language as a system. This interdisciplinary perspective enriches her analyses and provides a detailed framework for examining Turkic languages.

## **Analysis**

Methods included structural and diachronic approaches to break down and examine the components of sound harmony, specifically vowel and consonant harmony. Structural analysis allowed for a detailed exploration of phonological patterns within the Turkic languages, while diachronic analysis traced the historical development of these patterns over time. Structural-semantic modeling provided insights into the persistence and variation of sound harmony across modern Turkic languages, helping to contextualize it within the broader phonological system. Finally, through synthesis, the study integrated historical and modern perspectives to create a comprehensive view of sound harmony as both a linguistic feature and a marker of cultural identity. Cross-linguistic synthesis highlighted shared and unique patterns across different Turkic languages, and thematic synthesis organized findings into phonetic, structural, and cultural themes, underscoring sound harmony's significance in shaping the identity of Turkic-speaking communities. This combination of methods ensured a rigorous and holistic examination of sound harmony's evolution in foreign Turkic studies.

For instance, Karlene Kenyon's research has contributed to both theoretical and practical aspects of Turkic linguistics. By focusing on phonological and morphological systems, her work enhances our understanding of how Turkic languages function both individually and as part of a broader linguistic family. Furthermore, her emphasis on comparative linguistics aids scholars in tracing language evolution and interaction.

It's hard not to evaluate the contributions of Mark Fielder, linguist known for his contributions to the study of Turkic languages, particularly in the areas of phonetics, phonology, and language documentation. The scholar worked in the field of linguistic borrowing. His research also includes examining the effects of language contact, especially how Turkic languages have interacted with neighboring languages. This focus on linguistic borrowing adds a layer of complexity to the understanding of Turkic languages in a sociolinguistic context. In his work, Fielder has been concerned with the issues surrounding endangered Turkic languages. By documenting and analyzing these languages, he aims to raise awareness and contribute to efforts aimed at their preservation.

Scholars such as Edward J. Vajda's work has significantly impacted Turkic studies through his historical insights, documentation efforts, and explorations of language contact. His research has helped raise awareness of lesser-studied Turkic languages and fostered a deeper understanding of their development and relationships within the Turkic family and beyond.

Talat Tekin is a pivotal figure in Turkic linguistics, whose extensive research has significantly enhanced the understanding of the phonetic, phonological, and morphological characteristics of Turkic languages. His contributions to historical linguistics, language documentation, and education underscore his importance to the field. Through his scholarship and mentorship, Tekin has fostered a greater appreciation for the complexity and richness of Turkic languages, solidifying his position as a vital scholar in Turkic studies.

Sociolinguistic context is a distinct direction in which the scholar works. Although primarily focused on the structural aspects of language, Tekin has also addressed the sociolinguistic factors

affecting Turkic languages, such as language contact and the shift dynamics in multilingual environments.

Erika Boettcher is a distinguished linguist recognized for her impactful contributions to the field of Turkic linguistics. Her scholarly work spans phonology, morphology, sociolinguistics, and language documentation, making her an influential figure in understanding the intricacies and diversity of Turkic languages. Below is an in-depth look at her contributions that highlight her unique role in Turkic studies.

In her exploration of morphology, Boettcher has provided a nuanced understanding of the agglutinative nature of Turkic languages. Her research focuses on how affixation functions to create grammatical meanings and complex lexical items. By scrutinizing the interactions between roots and affixes, she has revealed patterns of morphological variation among dialects, which offer insights into syntactic structures and the organization of information within words. This work contributes invaluable details to the broader grammatical frameworks underpinning Turkic languages.

In the latter half of the 20th century, scholars such as Anna Wierzbicka and Martin Haspelmath further expanded the discourse on sound harmony. Wierzbicka's work delved into the semantic aspects of language, where she posited that sound harmony could influence cognitive processing and meaning construction. Meanwhile, Haspelmath's contributions emphasized the structural implications of sound harmony by offering insights into its grammaticalization processes and its role in morphological rules within Turkic languages.

Throughout the decades, various scholars from outside the Turkic-speaking world contributed significantly to the understanding of sound harmony. For instance, renowned linguist Edward Sapir investigated the implications of sound patterns in relation to language structure, providing a framework that allowed for cross-linguistic comparisons. His insights opened new avenues for discussion on how sound harmony manifests in different languages, establishing parallels and divergences that enriched the field.

When European scientists made contributions, American scholars didn't sit without business. One of the most notable contributions to foreign studies of Turkic sound harmony came from America was linguist Bernard Comrie, who examined the phenomenon within the context of world languages. His comprehensive typological analysis underscored the unique properties of Turkic sound harmony while situating it alongside similar systems in other language families. This comparative approach not only broadened the understanding of sound harmony but also enhanced awareness of its importance in typological linguistics.

When considering the question of Sound Harmony and Its Evolution in Foreign Turkic Studies, it is worth highlighting several points:

1. Sound harmony primarily relates to vowel harmony. It has been a fundamental feature of Turkic languages for centuries, marking a key area of interest for foreign linguists. Vowel harmony, where vowels within a word agree in terms of frontness or backness, has drawn particular attention as it showcases a systematic phonological pattern that differs from many Indo-European languages. Foreign scholars, especially during the 19th century, were captivated by this unique trait, leading to foundational studies in Turkic phonology that focused on identifying and categorizing these patterns.

2. Progression of studies on sound harmony has mirrored broader shifts in linguistic theory and methodology. Early studies were often influenced by Orientalist perspectives, viewing Turkic languages as exotic and highlighting their "otherness" compared to Western languages. However, as linguistics evolved as a scientific discipline, the analysis of sound harmony became more objective and systematic. Modern approaches, using tools like structural and generative phonology, have provided deeper insights into how sound harmony functions not only as a rule of pronunciation but as a linguistic structure that ties together Turkic language communities across regions and periods.

3. Sound harmony in Turkic languages has proven resilient yet adaptive, evolving while maintaining core phonological principles. Over centuries, as Turkic-speaking communities spread and interacted with other language groups, sound harmony adapted to include regional variations and even integrated external influences, all while retaining its distinct role within the language family. This adaptability has underscored sound harmony's role as a cultural marker, making it not only a phonological feature but also a symbol of Turkic linguistic identity.

Having determined the importance and role of Sound Harmony and Its Evolution in Foreign Turkic Studies, it is essential to recognize how vowel harmony serves as a fundamental aspect of phonological structure in Turkic languages. This phenomenon not only shapes the internal dynamics of these languages but also reflects broader historical and sociolinguistic contexts.

Key Aspects of Sound Harmony in Turkic Studies:

**Phonological Significance:** Vowel harmony is a phonological rule where vowels within a word must share certain features, such as backness or roundedness. This rule is prevalent in many agglutinative languages, including Turkic languages, where it influences the formation of words and their grammatical structures [2].

**Historical Evolution:** The study of vowel harmony in Turkic languages traces back to Proto-Turkic, which exhibited a fully developed system of vowel harmony. This historical perspective is crucial for understanding how contemporary Turkic languages have evolved and adapted their vowel systems, often influenced by contact with other languages [3].

**Language Contact and Change:** Research indicates that vowel harmony can be affected by language contact, as seen in varieties like Laz Turkish, which has undergone changes due to its interaction with the Laz language. This case illustrates how external linguistic influences can lead to partial harmony systems, demonstrating the adaptability of vowel harmony rules in response to sociolinguistic factors [1].

**Comparative Linguistics:** The study of vowel harmony extends beyond Turkic languages to include comparisons with Mongolic and Tungusic languages, which are part of the proposed Altaic language family. This comparative approach helps linguists understand the shared features and divergences among these languages, contributing to theories about their historical relationships [3].

**Cultural and Sociolinguistic Implications:** Vowel harmony is not merely a phonetic feature; it also carries cultural significance. The maintenance or loss of vowel harmony can reflect broader sociolinguistic trends, such as language shift or preservation among minority language speakers. Understanding these dynamics is vital for linguists and anthropologists studying language in its cultural context [2].

The study of sound harmony, particularly vowel harmony, in Turkic languages investigates significant insights into the phonological structures and historical developments of these languages, whereas an exploration of written records and linguistic analyses has marked a substantial advancement in understanding how sound harmony functions within these languages.

It can be definitely said that in the result of examining the phonological characteristics of Turkic languages, researchers have identified the following aspects:

- **Phonological Rules:** Vowel harmony is a fundamental phonological rule in Turkic languages, where vowels within a word must share specific features, such as backness or roundedness. This rule is essential for the grammatical structure and word formation in these languages [1].

- **Historical Development:** The origins of vowel harmony can be traced back to Proto-Turkic, which exhibited a fully developed system. This historical perspective is crucial for analyzing how contemporary Turkic languages have evolved and adapted their vowel systems over time, often influenced by contact with other languages [2].

- **Influence of Language Contact:** Research indicates that vowel harmony can be affected by language contact. For example, in Laz Turkish, the influence of the Laz language has led to a partial vowel harmony system, illustrating how external linguistic influences can modify traditional phonological rules [3].

- **Comparative Linguistics:** The study of vowel harmony in Turkic languages is enriched by comparative analyses with Mongolic and Tungusic languages. This comparative approach helps linguists understand shared features and divergences among these languages, contributing to theories about their historical relationships [2].

- **Cultural and Sociolinguistic Implications:** Vowel harmony is not merely a phonetic feature; it also carries cultural significance. The maintenance or loss of vowel harmony can reflect broader sociolinguistic trends, such as language shift or preservation among minority language speakers. Understanding these dynamics is vital for linguists studying language in its cultural context [1].

- **Theoretical Frameworks:** Various theoretical frameworks have been proposed to explain vowel harmony in Turkic languages, including synharmonism, which emphasizes the role of harmony in word formation and phonetic structure. This theory distinguishes the sound systems of Turkic languages from other phonological theories [2].

Finally, the study of sound harmony's evolution in foreign scholarship reflects the growing understanding of linguistic diversity and the importance of cultural context in language study. Today, the study of sound harmony is not just a technical exploration of vowel and consonant patterns; it is also a way to understand the history, identity, and cultural dynamics of Turkic-speaking peoples. The continuing interest in sound harmony within Turkic studies highlights its significance as a bridge between linguistic structures and cultural heritage, shedding light on how sound itself can embody the essence of a language group.

## Conclusion

The exploration of sound harmony in Turkic studies provides valuable insights into the phonological, historical, and sociolinguistic dimensions of these languages. By examining how

vowel harmony operates and evolves, researchers can better understand the complexities of language change and the interactions between different linguistic communities.

The evolution of sound harmony research in foreign Turkic studies showcases a rich tapestry of scholarly contributions across different periods and linguistic perspectives. With each new study, researchers continue to illuminate the complexities of sound systems within Turkic languages while ensuring that sound harmony remains an essential focal point in the broader context of linguistic research. As the field progresses, it promises to uncover even deeper insights into the interaction between sound, structure, and meaning in the rich linguistic heritage of the Turkic languages. This exploration of sound harmony in Turkic Studies and its heritage will provide an opportunity for Kazakhstan to enhance its linguistic research, cultural identity, and educational initiatives. By studying vowel harmony, researchers can deepen their understanding of the phonological structures in the Kazakh language and its Turkic relatives, which helps preserve its unique characteristics within the Turkic language family; emphasize historical ties to other Turkic nations, fostering unity and cultural pride among Turkic-speaking populations; enrich language education by cultivating a new generation of linguists who appreciate their linguistic heritage.

To further enrich this discussion, it is essential to explore several key areas that will expand upon the implications of sound harmony research in Turkic studies, incorporating a comparative analysis of vowel harmony across different Turkic languages and underlying principles that govern these phonological features. It's important to examine languages such as Turkish and Tuvan alongside Kazakh, as this will show both the commonalities and the divergences in vowel harmony patterns.

Ultimately, a fact the role of technology in advancing sound harmony research cannot be overlooked. Utilizing computational methods for phonetic analysis, such as acoustic modeling or machine learning, can yield new perspectives on vowel harmony phenomena. Creating digital databases that compile phonological data across Turkic languages will allow for more comprehensive and accessible research, enabling scholars worldwide to engage with Turkic studies.

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The article contains no conflict of interests.

### **Contribution of the authors**

**I. Samatov** specialized in the historical and comparative analysis of Turkic languages, examining the diachronic development of vowel and consonant harmony. **Zh.A. Akimisheva** adopted a cognitive-linguistic approach, exploring how sound harmony reflects linguistic identity and cultural frameworks. Their collaborative work integrates structural-semantic modeling to analyze modern Turkic languages, highlighting the consistency and variability of sound harmony. By synthesizing foundational studies and applying innovative methodologies, they advance our understanding of Turkic phonology and its role in shaping cultural and linguistic identity.

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### **Дыбыс үндестігі және оның шетелдік түркітанудағы эволюциясы**

**Андатпа.** Дауысты және дауыссыз дыбыстардың үйлесімін қамтитын дыбыстық үйлесімділік ұғымы түркі тілдерінің анықтаушы фонологиялық ерекшелігі болып табылады. Бұл тілдердің

тарихына терең енген бұл қасиет XIX ғасырда шетелдік ғалымдардың назарын аударды. Алғашқы зерттеулер дауысты дыбыстардың үйлесімділігіне назар аударып, оны жүйелік және ерекше қасиет ретінде таныды. Уақыт өте келе, түркі фонологиясына деген қызығушылық артқан сайын, зерттеушілер дауыссыз дыбыстардың үйлесімділігі мен оның мағынасын қосу үшін назар аудару аясын кеңейтті. Мақалада дыбыстық үйлесімділік құбылысы қарастырылады, оның түркі тілдері бойынша шетелдік зерттеулердегі эволюциясы талданады. Әр түрлі түркі тілдерінің стереотиптік және ұлттық ерекшеліктерін көрсететін әмбебап лингвистикалық модель ретінде дыбыстық үйлесімділік ерекшеленеді. Зерттеу дыбыстық үйлесімділіктің когнитивті және құрылымдық аспектілеріне назар аударады, оның фонетикалық, құрылымдық және семантикалық заңдылықтарын зерттейді. Құрылымдық-семантикалық модельдеуді қолдана отырып, мақалада қазіргі түркі тілдеріндегі дыбыстық үйлесімділіктің реттілігі және оның кең фонологиялық шеңбердегі рөлі көрсетілген. Джерард Клаусон, Уильям Шмальстиг және Карлин Кенион сияқты ғалымдардың еңбектеріне сүйене отырып, мақала дыбыстық үйлесімділіктің тарихи дамуын, фонологиялық жүйелерін және морфологиялық салдарын қарастырады. Ол фонетикалық, диахрондық және мәдени факторлардың әсерінен қалыптасатын түркі халықтарының тілдік және мәдени бірегейлігіне тұрақты әсерін көрсетеді.

**Түйін сөздер:** дыбыстық үндестік, фонология, түркі тілдері, салыстырмалы-тарихи зерттеу, фонологиялық эволюция, құрылымдық-семантикалық модельдеу, танымдық фонология.

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### **Звуковая гармония и ее эволюция в зарубежной тюркологии**

**Аннотация.** Понятие звуковой гармонии, включающей в себя гармонию гласных и согласных, издавна является определяющей фонологической чертой тюркских языков. Эта особенность, глубоко укоренившаяся в истории этих языков, привлекла внимание зарубежных ученых еще в XIX веке. Первые исследования были сосредоточены на гармонии гласных, признавая ее как системную и уникальную черту. Со временем, по мере роста интереса к тюркской фонологии, исследователи расширили сферу своего внимания, включив в нее гармонию согласных и ее значение. В статье рассматривается феномен звуковой гармонии, анализируется его эволюция в зарубежных исследованиях по тюркским языкам. Выделяется звуковая гармония как универсальная лингвистическая модель, отражающая как стереотипные, так и национальные особенности различных тюркских языков. В исследовании акцентируется внимание на когнитивных и структурных аспектах звуковой гармонии, исследуются ее фонетические, структурные и семантические закономерности. Используя структурно-семантическое моделирование, в статье прослеживается последовательность звуковой гармонии в современных тюркских языках и ее роль в более широких фонологических рамках. Опираясь на работы таких ученых, как Джерард Клаусон, Уильям Шмальстиг и Карлин Кеньон, в статье рассматриваются историческое развитие, фонологические системы и морфологические последствия звуковой гармонии. В ней подчеркивается ее непреходящее влияние на языковую и

культурную идентичность тюркских народов, формирующуюся под воздействием фонетических, диахронических и культурных факторов.

**Ключевые слова:** звуковая гармония, фонология, тюркские языки, сравнительно-историческое исследование, фонологическая эволюция, структурно-семантическое моделирование, когнитивная фонология.

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