## **ABSTRACT**

of the thesis by Ospangaziyeva Nazgul on the topic 'Historical foundations of phonological differential features in the Turkic languages,' submitted for obtaining the degree of Doctor of Philosophy (PhD) in the speciality "6D021300 – Linguistics"

Relevance of the research topic. It is well known that the formation and development of Kazakh linguistics as a scientific discipline spans several centuries. During this period, various directions have emerged within Kazakh linguistics, and the body of knowledge has continually expanded with new discoveries. However, the historical study of the Kazakh language, particularly its phonetic system, has developed relatively slowly. In this regard, the investigation of the history of Kazakh linguistics, especially its phonetics, is of particular relevance. Without a historical analysis of the origin and evolution of sounds, it is impossible to fully explain the lexical and grammatical features of the language from a scientific perspective. In this context, the study of the phonological system of Turkic languages, particularly the distinctive features of phonemes from a historical perspective, represents one of the key directions that allow for a deeper understanding of the structural organization of the language. Historical research on the sound system of Turkic languages traces back to the works of scholars such as S.E. Malov, K.K. Yudakhin, A.K. Borovkov, I.I. Meshchaninov, N.A. Baskakov, I.I. Ilminsky, M.A. Terentyev, V.V. Radlov, P.M. Melioransky, I. Laptev, N. Sazontov, G.V. Arkhangelsky, E.D. Polivanov, and V.V. Katarinsky. In Kazakh linguistics, this field was initiated by the studies of A. Baitursynov, K. Zhubanov, T. Shonanuly, Kh. Dosmukhameduly, E. Omarov, K. Kemengeruly, and other scholars.

In general linguistics, the features that differentiate phonemes from each other are called distinctive features (from Latin differentia - difference). In Kazakh linguistics, these features are commonly referred to as ayyrym belgileri - "distinctive features of phonemes." This study employs this specific terminology, considering the phonemes of the Kazakh language from a historical perspective. Such an approach allows for a deeper understanding of the processes involved in the development of the language's sound system. During the historical development of Turkic languages, the functions of phonemes continuously evolved: some distinctive features were lost, while others were newly formed. Analyzing such diachronic changes enables the tracing of the evolution of the phonological system and the identification of the roles of morphophonological processes and sound changes in the language. The theory of distinctive features provides a framework for analyzing the minimal phonological units that differentiate phonemes. Studying this theory in a historical-diachronic perspective provides a scientific basis for describing changes occurring in the sound systems of Turkic languages. For example, in certain historical periods, vowel distinctive features included oppositions such as hardness/softness, labialization, openness/closedness, and length; over time, these features could undergo transformation. In this context, the phonetic system of the Kazakh language is examined from a historical standpoint.

Although the phonetics of the Kazakh language is relatively well-studied, its phonemes and their historical distinctive features have not yet received sufficient attention. Therefore, this work investigates the development of the phonemic system of

the Kazakh language based on general patterns of Turkic languages, identifying historical changes in the distinctive features of sounds. Historical-phonological studies allow for the identification of both similarities and differences in the sound systems of Turkic languages, revealing internal regularities in their development. This is especially important for the comparative analysis of phoneme inventories, their functions, and mechanisms of change. Determining the similarities and differences of phonemes in Turkic phonology enables tracing the historical development of their distinctive features. Furthermore, it is essential to study the signs in the Orkhon-Yenisei and Talas Old Turkic monuments in terms of their shared and distinguishing features, as these monuments serve as important sources for understanding phonemes in the context of the historical evolution of Turkic languages.

The phoneme inventory of Turkic languages is heterogeneous, reflecting differences in their historical development despite common roots. Therefore, it is methodologically incorrect to study related languages in isolation from one another. Even in ancient Turkic monuments, vowel harmony between affixes and stems based on the feature of hardness can be observed, a phenomenon that persists in modern Turkic languages. In this regard, this study examines the phoneme inventories and distinctive features of languages such as Nogai, Karakalpak, Tatar, Bashkir, Kyrgyz, Uzbek, and Turkish.

The development of Turkic languages began in ancient times and passed through several stages to reach their contemporary forms. In this study, a comparative analysis of Turkic languages is employed to identify their common characteristics and individual features. The theory of phoneme and the historical development of the phonemic systems of the aforementioned languages are analyzed in detail, highlighting general patterns and differences in their sound structures. This enhances the scientific and theoretical significance of the study and contributes to a deeper understanding of phonological processes in Turkic linguistics. The comparative method is particularly important in this research, as phonetic phenomena are most clearly revealed through the comparison of sound systems across languages. Only through such an approach can the similarities and differences among languages be reliably determined. Thus, the application of comparative analysis reinforces the relevance of this study.

The phonetic system of the Kazakh language did not immediately acquire a phonological character; it developed gradually, expanding its functions and attaining phonemic status. Changes in the phonemic structure of a language are the result of the continuous evolution of its sound system. Therefore, historical research aimed at uncovering the nature and development pathways of sounds is especially important. In this study, the sound system of the Kazakh language is examined in comparison with the systems of Nogai, Karakalpak, Tatar, Bashkir, Kyrgyz, Uzbek, and Turkish. Comparing phonemes at the phonological level allows for the identification of their historical foundations, phonological analysis, and a scientific description of the system.

Research aim and objectives. The primary aim of this dissertation research is to determine the development and historical changes of distinctive features in Turkic languages. To achieve this aim, the following objectives are set:

- To characterize the history of the development of phoneme theory in linguistics, outlining the main directions of its research, as well as the theoretical and methodological foundations of phonological science;

- To systematize scientific findings concerning the functions of phonemes and their place within the linguistic system;

- To describe the current state of phonological distinctive features in Turkic

languages, as well as their historical stages and paths of development;

- To identify both single-level and multi-level distinctive features of phonemes and describe their position within the vocalic and consonantal systems;

- To investigate the distinctive features of vowels and consonants in Turkic languages using a comparative method, revealing their historical changes, typological similarities, and differences;
- To elucidate the mechanism of universal phonologization processes characteristic of Turkic languages (including Kazakh, Karakalpak, Nogai, Tatar, Bashkir, Kyrgyz, Uzbek, Turkish, Karachay-Balkar, among others) and determine the phonological functions of distinctive features.

Object of the Study. The evolution of the vowel and consonant systems in

Turkic languages.

**Subject of the Study**. The development and formation of phonological distinctive features of vowels and consonants in Turkic languages.

Scientific Novelty of the Research. In this study, the theory of distinctive features of phonemes is examined for the first time from a diachronic perspective based on scientific and linguistic data from Turkic languages. By analyzing positional changes of phonemes across different historical periods, their phonologized types were identified, allowing for the reconstruction of the evolution of the Kazakh phonological system. It has been established that, in the course of language development, the distinctive features of phonemes acquire the ability to differentiate meaning.

For the first time in Kazakh linguistics, the origin of single-level and multi-level distinctive features from onomatopoeic words has been demonstrated. The transitions of phoneme allophones into independent phonemes depending on their positional context have been investigated, showing that the development of distinctive features is

fundamentally based on phonemes acquiring their own phonemic value.

Through a comparative analysis of the characteristics and similarities of vowels and consonants in Turkic languages, the processes of change in distinctive features during the Old Turkic period have been revealed. A comparative retrospective study of the phonemes of Kazakh, Karakalpak, Nogai, Tatar, Bashkir, Kyrgyz, Uzbek, Turkish, Karachay-Balkar, and other Turkic languages was conducted, resulting in the description of their functions, regularities, and the specific nature of their distinctive features.

Theoretical Significance of the Research. The theoretical significance of this study lies in its substantial contribution to the development of Kazakh phonology, particularly in the theory of distinctive features, the theory of oppositions, and the concepts of invariant and variant, as well as in the acoustic-articulatory description and comparative-typological research. The results of the study refine the composition and functions of phonemes in Turkic languages, thereby contributing to the advancement of comparative and historical phonetics.

The study of languages from the Kipchak, Karluk, and Oghuz groups, which constitute the main branch of contemporary Turkic languages, as well as the languages of Old Turkic written monuments from the perspectives of vocalism and consonantism,

opens new avenues for further research in historical phonetics, diachronic phonology, historical grammar, lexicology, and etymology. Additionally, the findings of this work promote the development of comparative and contrastive linguistics within Kazakh linguistic studies.

Practical Significance of the Research. The results obtained in this study can be applied in the teaching of disciplines at higher education institutions, such as Introduction to Turkology, Old Turkic Language, Comparative Phonetics and Grammar of Turkic Languages, and Historical Grammar of the Kazakh Language. The materials of this work can also serve as a basis for developing curricula and syllabi for courses on historical phonetics. Additionally, the research findings can be utilized in specialized courses on Turkic languages and in disciplines such as historical grammar, history of the language, historical phonology, and the phonology of Turkic languages. The research materials can also be used in the creation of educational manuals and historical-comparative dictionaries.

Research Methods. This study employs the comparative-historical, contrastive, and typological methods, as well as methods of retrospection and reconstruction. Phonological investigations were also conducted, including phonemic and componential analysis, as well as synchronic analysis of the phonological system of the language.

Furthermore, to study contemporary linguistic data in both diachronic and synchronic perspectives, an acoustic-articulatory analysis of phonemes was performed.

## **Key Statements Submitted for Defense:**

- The differences between historical phonetics and historical phonology, as well as their object of study and methodological foundations, were systematically analyzed in the work. Historical phonetics aims to describe the evolution of individual sounds and their articulatory-acoustic changes, while historical phonology examines oppositions in the phonological system of a language, their distinctive features, and their development. In this regard, historical changes in phonemes and their differential features were studied for the first time from the viewpoint of diachronic phonology. It expands the theoretical framework of historical phonology and makes it possible to determine the formation of phonological distinctive features.
- From the viewpoint of diachronic phonology, it has been established that the original consonants are voiceless. The frequent use of the voiceless sounds  $<\kappa>$ ,  $<\kappa>$  in all positions in ancient Turkic written monuments confirms their prototypical character, and such changes as  $<\tau>$   $\to$   $<\pi>$ ,  $<\kappa>$   $\to$   $<\tau>$  indicate the subsequent voicing of voiceless consonants. Scientific data show that the opposition "voiceless—voiced" did not exist in the Proto-Turkic language, and that it was formed later as a result of the voicing of voiceless consonants. The frequent use of voiceless sounds  $<\tau>$  and  $<\kappa>$  in the middle of a word in the texts of written monuments instead of the expected voiced  $<\pi>$  and  $<\varepsilon>$  indicates that voiceless consonants were the original phonetic basis. This proves that the voiceless feature is historically primary compared to the voiced one.
- Based on historical phonology, it can be observed that the hard (non-palatalized) differential feature is the original one, which is confirmed by the frequent use of certain vowels in all word positions and by data from modern Turkic languages. For example, the phoneme a is found in all Turkic languages, and the linguistic data associated with it are recorded in ancient Turkic written monuments. This proves that

the phoneme a is at the beginning of the sentence. Also, if the vowel e is used without changes in all positions in most Kipchak languages, its reduction (e > ĭ) in Tatar and Bashkir – languages of the Kipchak–Bulgar subgroup indicates that their vocalic system has undergone reduction changes. The phonemes o (open back) and ö (front) are stably preserved in most Kipchak-Nogai and Kipchak languages, and only in the Kipchak-Bulgar languages is the transition  $\ddot{o} \rightarrow \ddot{u}$  observed as a result of reduction. The distinction between the reduced sounds y–i into hard (жуан) and soft (жіңішке) in the Old Kipchak language has been preserved in the Kazakh language, and it has been shown that these sounds continue to perform the function of distinguishing meanings (for example, tys–tis). From the viewpoint of historical phonology, it can be noted that the vowel  $\ddot{a}$  in the ancient Turkic period was used as a shade of the sound a. In the subsequent era, it developed into an independent phoneme. This demonstrates the historical path of development of the sign of hardness and softness (жуан–жіңішке) in the vocalic system.

The definition of one-dimensional and multidimensional differential features of phonemes has been carried out on a scientific basis. If one-dimensional features are determined by only a single articulatory parameter of a phoneme, then multidimensional features are formed with the involvement of two or more parameters, as has been consistently demonstrated. It is shown that in Turkic languages, vowels are mainly distinguished by one-dimensional oppositions (hard–soft, open–closed, labialized–non-labialized), whereas the consonant system is based on multidimensional features (place of formation, method of formation, voicelessness–voicedness, sonority).

Sources of the Research. The main sources of this dissertation research include the Old Turkic Dictionary (1969) and N.A. Baskakov's work Historical-Typological Phonology of Turkic Languages (1988). Additionally, fundamental studies and scholarly publications on the history of Turkic languages were consulted.

Methodological Basis of the Research. In preparing this study, the scientific works and concepts of leading researchers of Turkic languages were utilized, including A.N. Kononov, N.A. Baskakov, N.K. Dmitrieva, E. Sevortyan, E.R. Tenishev, A.V. Dybo, as well as Kazakh scholars such as A. Baitursynov, K. Zhubanov, S. Amanzholov, I. Kenesbayev, K. Akhanov, M.T. Tomanov, A. Kuryszhanov, Zh. Aralbaev, A. Kaidarov, A. Ibatov, S. Isayev, A. Zhunisbek, B. Sagyndykuly, B. Kaliyev, Z. Bazarbayeva, Zh. Tuymebaev, G. Sagidoldy, M. Eskeev, R. Avakova, M. Sabyr, A. Fazylzhan, Zh. Zhumabaeva, and others. Their scholarly works and articles provided the theoretical and methodological foundation for this research.

Publications on the Research Topic. The main results of the research have been published in 10 scientific articles in both domestic and international journals. Among these, four articles were published in journals listed by the Committee for Control in the Field of Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan (CQASHE), two articles in journals indexed in the Scopus database, and four articles in proceedings of international scientific-theoretical conferences.

Structure of the Research. The dissertation consists of an introduction, three chapters, and a conclusion. At the end of the work, a list of references and sources used is provided.