

Study of Root Word Nests in World Linguistics from Various Aspects

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Abstract. The history of language is directly related to the history of word roots and root word nests. The evolution, morphological and semantic changes within root words and root word nests have always been a focus of world linguistics. Structural-semantic analysis of root word nests investigates the interaction between the semantics of the core words of these nests and the structural features. This structural-semantic analysis explains the relevance of the components included in the root word nest to the parts of speech and the influence of grammatical categories on the motivation of these components. Modern theories of word formation encourage the study of lexical-grammatical problems in cognitive and pragmatic directions in root word nests and create conditions for studying complex units of root word nests from the perspective of frame theory at the level of discourse. In particular, frame theory, its methods, and techniques began to be applied to word creation and lexical-grammatical root word nests.

Keywords: root word nests; morphemes; semantic and grammatical evolution; morphological structure; evolution; word formation.

INTRODUCTION

The study of root word nests in linguistics has a rich history. In European, Russian and Semitic linguistics, F. Bopp, Y. Grimm, A. Schleicher, E. Benveniste, Y. Kurilovich, E. Makayev, and V. Vinogradov have achieved interesting results in the study of root word nests. N. Grech and G. Pavsky studied the semantic-derivative evolution of Russian root words. However, root word nests were not studied from a synchronic perspective until the 1960s. The approach to the word-formation system of the Russian language from the aspect of root word nests has been widespread since the 60s of the 20th century.

Since the 70s of the last century, the study of root word nests at the level of structural paradigmatics has begun. From this point of view, word root nests are studied within the framework of the applicative word-formation model. According to these theories, the mechanism of word formation structure is based on the peculiarities of derivational complexes. The applicative word-formation model, which emerged under the influence of the structuralist scientific paradigm, has become a universal method of root word nests. In this regard, linguists I. Altman and E. Ginzburg attract

particular attention. In the work of the scientist "Word Creation and Syntax", the problems of word-forming semantics are investigated, various forms of newly formed words in root word nests are considered, the relationships between the components included in root word nests are studied, the functional directions of newly formed words in root word nests and their syntactic features are explained [6].

A comprehensive and systematic study of root words in Indo-European linguistics is perfect. In Indo-European linguistics, word root nests have been studied fundamentally, and various theories have existed in the study of root words. In this regard, the role of typological reconstruction should be especially noted. Speaking about the history of research on root nests, mentioning the name of S. Meisel is necessary. He studied the root morphemes of Semitic languages and created the theory of root variants.

In Indo-European linguistics, the root of a word is morphologically complete but does not have independent semantics. In those languages, the base part often undergoes morphological changes and expresses some meaning. If there is a parallelism between the root and the word in Turkic

languages, this is impossible to see in Indo-European languages. In Indo-European languages, the root of a word, in most cases, does not have any meaning; only in the base case is its lexical meaning understood.

The German linguist A. Schleicher called root-word languages the beginning of development. A. Schleicher has a special role in the history of the study of root words, which are the peak component of root word nests in Indo-European linguistics. A. Schleicher divides languages into three classes reflecting three stages of evolution: monosyllabic, agglutinative and inflectional, according to A. Schleicher, all three types of languages arose in prehistoric times. Monosyllabic languages constitute the first stage of development. The type of agglutinative languages develops from this type of root-word languages, and at the final stage of development, inflectional languages arise from agglutinative languages. The scientist attributed inflectional languages, to which Indo-European languages belong, to the highest stage of development.

METHODS

This research is based on a descriptive-comparative linguistic methodology that draws from synchronic and diachronic approaches to root word nests in world linguistics. The material for analysis includes a broad corpus of scholarly works that address the evolution, structure, and semantics of root word nests in Indo-European and Turkic language families. Special attention has been paid to the theoretical and methodological frameworks developed by E. Benveniste, A. Schleicher, F. Bopp, A. Tikhonov, and I. Evseeva, whose works reflect structuralist and cognitive paradigms in root nest analysis. Furthermore, the semantic-grammatical aspects of root word nests were examined through reference to the writings of Azerbaijani linguists such as B. Khalilov, T. Hajiyev, and B. Maharramli. Their studies provided a Turkological perspective on the monosyllabic origins and phonosemantic development of root morphemes, which were essential to the comparative framework.

The research method integrates structural-semantic analysis, which was used to investigate the interaction between the morphological features and semantic content of the root word nests. In parallel, cognitive modelling was employed to interpret the data within an anthropocentric

framework considering conceptual and discourse-related dimensions. Data were extracted from classical linguistic sources, contemporary monographs, theoretical dictionaries, and etymological glossaries. The analysis focused on identifying functional relationships among root word nest components, evaluating derivational chains, and establishing grammatical paradigms about lexical formation. By combining historical typology and modern cognitive-discursive methodologies, this study reveals how the organisation of root word nests reflects broader linguistic patterns and mental schemas in Indo-European and Turkic language traditions.

In contemporary linguistics, root word nests are increasingly viewed not just as etymological or morphological groupings but as dynamic systems that reflect the deep structure of a language's lexicon and cognitive architecture. Emerging from a shared root morpheme, these nests encompass various derived and cognate words, forming semantic, grammatical, and conceptual networks. Indo-European and Turkic languages offer rich material for studying root word nests, each bringing unique typological features and derivational strategies that merit comparative investigation. This research builds on the foundational works of European and Azerbaijani linguists – such as E. Benveniste, A. Schleicher, A. Tikhonov, and B. Khalilov – who have explored the intersection of form, meaning, and structure in root-based systems of vocabulary development.

The main aim of this study is to analyse the internal organisation and cognitive-semantic structure of root word nests in different language systems, focusing on how derivational processes, phonosemantic properties, and conceptual models influence their formation. The study examines representative data from Indo-European and Turkic languages, particularly Russian and Azerbaijani, to uncover how lexical units cluster around root morphemes and how these clusters mirror broader grammatical paradigms and mental schemas. The analysis also pays special attention to the interplay between word formation patterns and culturally embedded worldviews, often encoded within root nests' semantics.

To achieve this aim, the study addresses several key research problems: 1) identifying the typological similarities and differences in root nest structures across language families; 2) tracing the semantic and morphological evolution of root morphemes through historical and modern usage;

and 3) determining the extent to which root word nests reflect anthropocentric principles and conceptual models of cognition. By applying structural-semantic and cognitive-discursive methods, the research contributes to a deeper understanding of how root systems function as both linguistic and conceptual frameworks within different linguistic traditions.

RESULTS AND DISCUSSION

Agglutinative languages developed from root-word languages, and inflectional languages developed from agglutinative languages. A. Schleicher noted that the typological classification of languages is the differences in their expression of content and attitude. By content, he meant the concepts and understandings expressed by sound [1].

E. Benvenist studied the primary roots and word nests formed by these roots in Indo-European languages. The scientist's fundamental works are devoted to the semantic and grammatical evolution of root words in Indo-European languages and the special features of the root nests formed by these root words [4].

The ancient Greek and European scholars Democritus, Plato, W. Leibs, W.von Humboldt, D. Herdar, and D. Whitney supported the theory of sound imitation. According to the ancient Greek philosopher Plato, words arose from sounds characteristic of certain objects [4, p. 45]. Sounds have a symbolic meaning. The internal relationship between sound and meaning determines the form and content of the original words.

The outstanding German linguist V. von Humboldt also writes about the history of the formation of word roots, which are the top component of root word nests: "The sound form is the form created by the language to express an idea. It can also be imagined as a skeleton on which the language is built. The difference between languages is based on the sound form. This stems from the very nature of the sound form. To form an idea about the form of a language, it is necessary to pay attention to the real characteristics of its sounds. The true and complete formation of the sound form belongs only to the early periods of the language, that is, to the periods unknown to us and accepted as a hypothesis. The sound form of a language is a grammatical form that encompasses the laws of word formation, which include logical categories added to root words" [11].

The prominent American linguist of the 19th century, William Whitney, noted the direct connection between word roots, sound imitation and the formation of language. According to Whitney, the languages of the peoples of the world differ from each other because each of them has its unique sound form. The sound form is a sign prepared by the language for thinking. Only materially formed sounds can create language. Language is a mechanism that expresses extra-linguistic meanings through sounds. By the term "external form", A.Rajabli understands the sound composition, morphological structure and content of the language, and by the term "internal form", he understands the method of combining this concept with sound, thought with linguistic matter. Thus, the internal form-thinking is a functional model of the language relationship [12, p. 72].

According to research, it can be said that the basis of root word nests is monosyllabic root morphemes. The idea of monosyllabism has always been defended in European linguistics. The idea that root morphemes, the top components of root word nests, are monosyllabic was defended by A. Shcherbak, V. Pisani, M. Miller, F. Benveniste, H. Hirt, A. Fisk, A. Meyer and others. A. Shcherbak thoroughly analysed morphology in his work [13]. In the chapter "On the Root" of the work, A. Shcherbak explains his theory about the root of words in Indo-European languages [13]. According to the scientist, the original root of words in Indo-European languages was monosyllabic and was divided into two classes: verb and pronoun roots. A. Shcherbak 's goal was to study the Indo-European language family and prove the kinship of the languages belonging to this language family. This prominent scientist discovered the comparative-historical method while searching for ways to explain the Indo-European language family [13].

The history of studying root word nests in Russian linguistics proves that a cognitive approach and anthropocentric theory are now replacing structuralist paradigms. At this time, root word nests are studied as complex units and concepts associated with the concepts of conceptualisation and discourse.

I. Evseeva presents lexical root word nests as a fragment of the world's linguistic landscape. She tries to study root word nests within the framework of the cognitive direction and calls her research a new approach to studying root word nests in Russian linguistics [16], according to I. Evseeva, each word-forming unit performs two

functions: 1) a language unit that contains systematic information about the world; 2) a language unit that expresses the concept and features of the language system. I. Evseeva created a new direction in the history of studying complex units. The cognitive modelling of root word nests forms the basis of this direction. According to this direction, each lexical root word nest stores information related to human mental activity organises it based on models and updates it. The study of root word nests from a cognitive-discursive perspective is reflected in the work [16]. The root word nest is presented in this work as a carrier of conceptual information. The system-centred paradigm is now replaced by a cognitive direction based on the anthropocentric paradigm. The cognitive direction creates the basis for the study of root word nests from an integrative perspective.

In the 70s-90s of the last century, the works of A. Tikhonov opened a special page to study the theory of root word nests. After A. Tikhonov, root word nests began to be studied from various aspects. Studying the concepts of word formation, root words, and lexical and grammatical nests took a special form during this period. The typology of root word nests, word-forming paradigms, word-forming chains, and root word nests of nouns, adjectives and verbs began to be widely studied [12].

The prominent Russian scientist A. Shirshov notes that the root word nest is not a mechanical combination of lexical and word-forming elements. The components of the root word nest are a unique combination, an organic unity of lexical and word-forming subsystems [17]. Studying these components in isolation violates the theory of the unity of language. In Russian linguistics, the study of structuralist and semantic paradigms of root word nests was reflected in dictionaries and grammar. Shirshov's dictionary was a new step in the evolution of derivation – this dictionary of I. Shirshov combined aspects of word creation and lexicography. The lexical root word nests presented in this dictionary created a new form of lexicographic information. Each dictionary article presents the relationship of derivatives with the core words of the root word nests and other derivatives.

The monographs of I. Ulukhanov emphasised the special role of the structural-semantic direction in word forming and the evolution of root word nests [15]. An in-depth study of the word-forming system, the processes taking place in it, and their

connection with the lexical, morphological, and syntactic levels of the language system gave impetus to the development of the study of mutual relations in word-forming.

N. Baskakov discussed the phonological and morphological evolution of word roots in Turkic languages [3]. From the point of view of the comparative study of root word nests in synchrony and diachrony, the work [15] is particularly interesting.

A. Kaydarov discusses the syncretism of primary root words in the system of Turkic languages and their semantic-structural, phono-morphological evolution. According to the scientist, some of the root morphemes in the Kazakh language remained "dead" roots, while others retained their original form [8].

The first information about root words in Turkic languages is found in the 11th-century work of M. Kashgarli [9]. In Turkology, the study of root morphemes, which form the basis of root word nests, is found in the works of A. Vamberi and V. Radlov at the end of the 19th century. Although the problem of root word nests has not been systematically studied in Turkology, the main components included in these paradigms - word roots - have been thoroughly studied [9].

In Azerbaijani linguistics, root word nests have not been involved in systematic research as in Russian and other Indo-European languages. Only root words, the main component of root word nests, have been widely studied in Azerbaijani linguistics. The research of Azerbaijani linguists G. Bagirov, H. Mirzayev, A. Akhundov, Y. Mammadov, T. Hajiyev, Z. Aliyeva, G. Kazimov, B. Khalilov, B. Maharramli and many others has touched upon the issues of etymological analysis of root words and initial word formation.

Academician T. Hajiyev, in his work, commented on the pre-written period of the Azerbaijani language, noted the morphological evolution of root words, and investigated the lexical and phonetic similarities between the Azerbaijani and Sumerian languages [10].

The problem of root words was also given special attention in the work of A. Akhundov. In his article, the scientist explained many words and determined the main rules for compiling an etymological dictionary [2].

The research of Azerbaijani scientist B. Khalilov occupies a unique place in the evolution of word

roots. The scientists' monographs are devoted to the history of Turkic languages and the development of root words [5]. The scientist concluded that monosyllabicity, syncretism and homonymy were the main grammatical features of the amorphous structural period of Turkic languages.

Comparative analysis of verb roots in languages with different systems shows that verbs in these languages have undergone different historical and semantic development paths. The current linguistic lexicographic picture of verbs in the Azerbaijani language allows us to determine that they differ from a phonetic, morphological and semantic point of view. Studying the forms and meanings of these lexical units recorded in the early written monuments of Azerbaijan and other Turkic peoples is important.

The problem of studying root words in Turkic languages occupies a special place in the works of B. Maharramli. Root words are thoroughly studied in the monograph [7]. The scientist studied the words he included in the research and traced the historical differentiation of root words in all Turkic languages. Such studies make it possible to explain the independent development path of Turkic languages [7].

CONCLUSIONS

The study of the evolutionary history of language in linguistic literature proves that after the second half of the 20th century, the internal structure of the language system, its levels, and paradigmatic and syntagmatic relationships have again become the object of research. The lexical-semantic processes in the language system at any given time require the researcher to examine the connections and relationships between words and word groups. Currently, the main research object is not individual language units but the whole system of relationships between these units. This research approach creates certain difficulties, but precisely, these methods allow us to reveal objective

regularities inherent in the evolutionary process. The history of research on root word nests proves that a cognitive approach, an anthropocentric theory, is now replacing structural paradigms. At this time, root word nests are studied as complex unit concepts; they are associated with the concepts of cognitive linguistics and discourse. Root word nests develop and change based on the paradigmatic and systemic regularities of the language. The language system analyses root word nests as a single object of morphology and word formation. The grammatical centralisation of the language characterises this method. Each newly formed word enters a hierarchy of categories. In this hierarchy, the general categorical meaning occupies the main place. In this case, the problems of word formation are investigated based on the principles of division of parts of speech. New words are analysed based on morphological principles, and word formation processes are determined by the semantic-functional regularities of this or that part of speech. The evolutionary history of the semantic structures of the substantive, adjectival, and verbal root word nests of the language system is closely linked to peoples' social thought and culture.

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Studying word creation and derivational motivation based on structural-semantic principles is crucial in modern linguistics. The harmony of language forms and meanings determines the mutual relationship of word roots and affixes in root word nests. The root word nest, distinguished by its stability and constancy, develops together with the language system. Word formation and grammar have an interactive force within the root word nest. Root word nests develop and change based on the paradigmatic and systemic regularities of the language, creating a network.

REFERENCES

1. Ahmadova, A. (2023). *Orxon abidələrinin dilində söz yaradıcılığı* [Word formation in the language of the Orkhon inscriptions]. Baku: Elm və təhsil (in Azerbaijani).
2. Akhundov, A. (1988). *Ümumi dilçilik* [General linguistics]. Baku: Maarif (in Azerbaijani).
3. Baskakov, N. (1979). *Историко-типологическая морфология тюркских языков* [Historical and typological morphology of Turkic languages]. Moscow: Nauka (in Russian).

4. Benvenist, E. (1974). *Общая лингвистика* [General Linguistics]. Moscow: Progress (in Russian).
5. Khalilov, B. (1995). *Azərbaycan dilində təkhecalı feillərin əsasında duran ilkin köklərin fonosemantik inkişaf* [Phonosemantic development of initial roots underlying monosyllabic verbs in the Azerbaijani language]. Baku: Elm va təhsil (in Azerbaijani).
6. Ginzburg, E. (1981). *К разработке критериев направления производности* [On the development of criteria for the direction of derivation]. Moscow: Nauka (in Russian).
7. Maharramli, B. (2017). *Türk dillərində isim köklərində leksik-semantik inkişaf* [Ancient lexicon of Turkic languages]. Baku: Elm va təhsil (in Azerbaijani).
8. Kaydarov, A. (1981). *Некоторые аспекты синкретизма первичных основ в тюркских языках* [Some Aspects of Syncretism of Primary Roots in Turkic Languages]. Alma-Ata: Nauka (in Russian).
9. Habibova, K. (2012). "Kitabi – Dada Gorgud" of the principle of economy in the language of epics psycholinguistic interpretation. *Turkology*, 4, 75–84.
10. Hajiyev, T. (1983). *Azərbaycan dilinin yazıya qədərki izləri haqqında* [On the traces of the Azerbaijani language before writing]. *Issues of Azerbaijani philology*, 25–34 (in Azerbaijani).
11. Humboldt, V. (1984). *Избранные труды по языкознанию* [Selected works on linguistics]. Moscow: Progress (in Russian).
12. Rajabli A. (2006). *Dilçilik tarixi* [History of Linguistics] (Vol. I-II). Baku: Nurlan (in Azerbaijani).
13. Shcherbak, A. (1981). *Сравнительная морфология тюркских языков* [Comparative morphology of Turkic languages]. Leningrad: Nauka (in Russian).
14. Tikhonov, A. (1971). *Проблемы составления гнездового словообразовательного словаря современного русского языка* [Problems of compiling a nested word-formation dictionary of the modern Russian language]. Samarkand: n. d. (in Russian).
15. Ulukhanov, I. (1977). *Словообразовательная семантика в русском языке и принципы ее описания* [Semantics of word-forming in the Russian language and its principles of description]. Moscow: Nauka (in Russian).
16. Evseeva, I. (2011). *Когнитивное моделирование словообразовательной системы русского языка* [Cognitive modeling of the word-formation system of the Russian language]. Kemerovo: Gramota (in Russian).
17. Shirshov, I. (1999). *Теоретические проблемы гнездования* [Theoretical problems of nesting]. Moscow: Prometheus (in Russian).