## ТЮРКСЬКІ МОВИ

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## STRUCTURAL AND SEMANTIC FUNCTIONS OF AFFIXES IN SELECTED TURKIC LANGUAGES

This article examines the structural and semantic roles of affixes in four typologically significant Turkic languages: Turkish, Azerbaijani, Kazakh, and Uzbek. Characterized by their agglutinative morphology, these languages extensively employ affixation – primarily in the form of suffixation – to encode grammatical relationships and facilitate lexical expansion. Through a comparative analysis of inflectional and derivational affixes, the study investigates both the formal morphological structures and the semantic contributions of these affixal elements. Findings reveal a typological core shared across the languages, particularly in systems of case inflection, verbal conjugation, and derivational processes. Simultaneously, the analysis identifies language-specific semantic functions of affixes, including the marking of modality, negation, degree, and abstraction. The study further considers the role of vowel harmony and phonological variation in shaping affix behavior. Overall, the research highlights affixation as a central mechanism in both grammatical organization and semantic elaboration, contributing to a deeper understanding of morphological strategies in agglutinative language systems. The Turkic languages form a widespread and historically significant language family, spoken from Eastern Europe and the Caucasus through Central Asia to parts of Siberia and Western China. Among the most widely studied members of this family are Turkish, Azerbaijani, Kazakh, and Uzbek, which represent distinct sub-branches – Oghuz, Kipchak, and Karluk - of the Turkic linguistic continuum. Despite regional and structural differences, these languages share foundational typological characteristics, chief among them being their agglutinative nature. In agglutinative languages, grammatical and lexical functions are typically conveyed through the linear addition of affixes, with each affix generally corresponding to a single, discrete function. Within the Turkic languages, this morphological strategy is primarily realized through suffixation, as prefixes and infixes are exceedingly rare or absent. This suffix-based system enables complex word formation while preserving morphological clarity and structural predictability.

Key words: Turkic languages, inflectional affixes, derivational affixes, word formation, semantic functions, structural functions.

Statement of the problem. The group of Turkic languages is very large. This family combines many languages. Nowadays, they are spoken not only by the inhabitants of Turkey and Azerbaijanis themselves, but also by the peoples of the CIS, Afghanistan, China, Iran, Yugoslavia, Bulgaria, Kazakhstan, Albania and many other countries.

From a purely grammatical point of view, multiplicity indicators play an important role in these languages. It is unique in itself, as it is actually present in every language on the planet. In Turkic, it is transmitted mainly through special affixes that stand in many parts. However, this is such a significant and extensive system that it is still an urgent problem of Turkic linguistics.

It is characteristic that in the 21st century, research by Azerbaijani, Turkish, and European scientists in this field is conducted in various directions. This process is actively promoted by the level of scientific and theoretical potential, which is increasing from year to year. On the one hand, Turkologists, having before them a specific material – that is, a certain discourse, rely on grammatical rules based on the text itself. It is within these boundaries that they analyze the norms of the use of certain affixes. On the other hand, scientific research is conducted using the method of comparative analysis. Namely, the available works of both theoretical and applied nature on the Turkic grammar of the past centuries are organically compared or compared with

the laws of the use of affixes within the same group or with the system of other modern languages.

Affixation in these languages is not merely a formal mechanism -it plays a crucial role in expressing grammatical relations such as tense, aspect, case, person, and number, while also facilitating lexical derivation and semantic expansion. Despite their shared reliance on affixation, Turkic languages display notable variation in the form, function, and productivity of affixes, shaped by both internal linguistic evolution and external contact with other language families.

This article undertakes a comparative analysis of affixation in four Turkic languages – Turkish, Azerbaijani, Kazakh, and Uzbek – with the aim of examining both structural (morphological) and semantic dimensions of affix use. The study sets out to:

- 1) Analyze the morphological characteristics of inflectional and derivational affixes, with attention to phonological processes such as vowel harmony and morphophonemic variation;
- 2) Explore the semantic contributions of affixes, particularly in marking grammatical categories and extending lexical meaning;
- 3) Identify shared patterns of affix usage across the selected languages, alongside language-specific features arising from historical, phonological, or sociolinguistic factors.

By focusing on both the form and function of affixes, this study contributes to a deeper understanding of how Turkic languages maintain grammatical coherence and semantic flexibility through a common but diverse morphological framework. It further adds to cross-linguistic discussions in morphological typology and the semantics of affixation in agglutinative languages.

In this research, the approach centers on conducting a comparative study of affixation across four representative Turkic languages: Turkish, Azerbaijani (Oghuz branch), Kazakh (Kipchak branch), and Uzbek (Karluk branch). The selection of these particular languages is based on their typological importance within the Turkic family, which provides an extensive yet cohesive range for analysis. Below, the rationale for language selection, data sources, and the analytical methodology are outlined, with reference to insights from leading linguists on comparative morphological studies.

Analysis of recent research and publications. In the view of Comrie [2], examining languages from different branches within the same language family enhances the understanding of both shared linguistic features and the mechanisms of language differentiation over time.

The study utilizes three key data sources: grammatical texts, corpora, and native speaker intuition. According to Baker [1], grammatical descriptions are essential for providing a foundational understanding of the morphosyntactic properties of each language, including details on case markers, verb conjugations, and derivational affixes.

Corpora offer authentic, contextually varied data, allowing for the examination of real-world usage. As Sinclair [8] emphasizes, corpora provide a dynamic representation of how affixes function in different contexts and can highlight variations that may not be evident in formal grammatical descriptions.

The inclusion of native speaker intuition enriches the analysis by offering insights into colloquial usage and subtle pragmatic nuances that may not be captured by formal written sources. W. Labov [7] highlights the value of intuitive data in understanding variable language patterns, such as speaker-specific uses of affixes or semantic shifts that occur in informal speech.

By integrating these diverse data sources, the study ensures a comprehensive examination of affixation, accounting for both theoretical and practical aspects of language use.

The analysis in this study employs both descriptive and comparative methods. Descriptive linguistics involves systematically documenting the morphological features of affixes within each language, while comparative analysis focuses on drawing comparisons between languages to identify both common structures and unique variations in affix usage.

A central aspect of the analysis is the use of interlinear glossing, a widely accepted tool in linguistic research that facilitates the precise presentation of affixed forms and allows for easy comparison of grammatical structures across languages. Keenan [5] underscores that interlinear glossing not only clarifies the morphological structure but also helps differentiate between inflectional and derivational affixes, shedding light on their semantic functions.

Additionally, the study adopts a typological framework as suggested by Haspelmath [4], using it to categorize and compare the structural and semantic roles of affixes across the languages under consideration. This approach allows for an in-depth exploration of the grammatical categories expressed by affixes, as well as their meaning-expanding functions in lexical derivation.

**Task statement.** The main task of the article is the structural and semantic roles of affixes in Turkic languages in a comparative aspect.

Outline of the main material of the study. It is significant that one direction of scientific research not only does not contradict the other, but also symptomatically complements it. The unification of linguistic information from the two positions we have mentioned above functions promptly. Firstly, by joining in a certain way with the category of number, it demonstrates the structure of word inflection in the Turkic languages. Secondly, it extends individual theoretical provisions to other logical and grammatical categories. Thirdly, it provides a picture of the dynamics of affixes. Moreover, if we are talking about their use in a diachronic section, then the indicator of plurality is most often present. Finally, fourthly, the combined efforts of linguists of the two directions more vividly and deeply reveal the functional and lexical-semantic features of affixes in the process of speech production. Modern research clearly proves that some affixes in the Turkic languages are polyvariant, their number, according to modern phonetic standards, varies from 2 to 16. Under the common denominator – about twenty-two. These are: lar, -lar, -ler, etc. According to the same sample, affixes with the initial consonant "n", "d", "t" and "z" were identified. That is, "nar"..., "dar"..., "tar"... and "zar"...

It has been reliably established that in the Azerbaijani language, when compared with the Uyghur language, the named affix (-lar) is used in two forms: the first and "-lar", in accordance with the law of harmony. Therefore, "lar" functions in texts with a hard base, and "-lər" - with a soft base, respectively. For example: alma-lar, təpə-lər – in Azerbaijani; kitap-lar, işçi-ler – in the Uyghur language. Let us also note that the same phenomena are observed in modern Turkish and Turkmen languages. "taslar", cicek-ler and at-lar, kol-ler in the two named languages. An instructive fact: teachers of the Tatar and Azerbaijani languages in the course of teaching Turkmen should monitor and correct characteristic errors in the known and in this case pronounced phenomenon of interference.

It should be emphasized that in some other languages of this group the use of the affixes mentioned also has two forms. This is observed in the synharmonic Kumyk and Karachay languages. However, there is some difference: the final "-r" is absent in certain cases, especially when using lexemes in different cases. For example, in the Kumyk language, at-lar is rendered by the following sound [for simplicity and convenience, we will divide it into syllables]: at-la-ny, at-la-g'a, at-lar-dan, and so on. In the Karachay-Balkar language, the affixes "-la/-le"

are used in the nominative case (bala-la), that is, "children". Or: inek-ler ("cows"). In Tatar, this affix has four forms: -lar, -lər, -nar, -nər. In the Khakass language there are six with the exclusive use of the plural form. In turn, in Tungus and Bashkir there are eight. In Altai and Kyrgyz there are twelve. And so on. Such a large number of meanings of affixes in the languages of the Turkic group with the constant use of the plural form tells us about their diversity and heterogeneity, confirming the above-mentioned position on the importance, timeliness and relevance of further research in the analyzed direction.

The decision to analyze Turkish, Azerbaijani, Kazakh, and Uzbek is informed by their representative status across the major branches of the Turkic language family. As noted by Greenberg [3], while Turkic languages share a common ancestry, they exhibit substantial internal diversity, making crossbranch comparisons particularly valuable for understanding the evolution of morphological systems.

Turkish and Azerbaijani, though both belonging to the Oghuz branch, exhibit notable phonological and lexical differences due to their distinct historical development. These languages thus provide a useful contrast for studying internal variation within the same branch.

The inclusion of Kazakh and Uzbek, which belong to the Kipchak and Karluk branches respectively, offers a complementary perspective, particularly with regard to case-marking systems, verbal morphology, and the impact of external language contact, such as Persian and Russian influences.

Affixation, a core characteristic of the Turkic language family, plays a pivotal role in both the structural and semantic organization of these languages. This review examines the inflectional and derivational affixes, as well as their semantic functions, providing an academic perspective on the linguistic implications of affixation in the Turkic languages, drawing on the views of prominent scholars in the field.

Affixes in Turkic languages are primarily suffixes, given the agglutinative nature of these languages, which implies a relatively clear-cut attachment of grammatical morphemes to word roots. This morphological strategy allows for the expression of various syntactic categories such as case, number, possession, tense, mood, voice, and more.

Case Markers are fundamental in Turkic languages, marking grammatical relations such as dative, accusative, and genitive. As noted by Haspelmath [4], case markers are critical in

agglutinative languages for expressing syntactic functions without the need for word order flexibility. For instance, in Turkish, the accusative case suffix -i and dative case suffix -e are essential for identifying the syntactic role of nouns in a sentence. Similar patterns can be observed in Azerbaijani, Kazakh, and Uzbek, although each language has its own phonological variations and morphological rules for case markers (Azerbaijani using -i, -a, while Kazakh and Uzbek use different forms).

Verb Conjugation is another area where inflectional affixes play a significant role, encoding person, tense, mood, and voice. According to Comrie [2], verb inflection in agglutinative languages like Turkish and Azerbaijani follows predictable patterns that are highly regular. In Turkish, for example, verb conjugation involves a sequence of affixes that reflect tense, mood (indicative, imperative), and voice (active, passive). In Kazakh and Uzbek, verb morphology is similarly structured, though Tatar and Turkmen can exhibit irregularities due to historical and regional influences.

Affixes for number and possession are used across these languages to indicate plurality and possession. For instance, in Turkish, plurality is marked by the suffix *-ler* or *-lar*, while possession is indicated by suffixes like *-im* (first-person singular), *-in* (second-person singular), and *-i* (third-person singular). The presence of these affixes reflects the syntactic necessity for precise morphological markers, which Baker [1] suggests as crucial in maintaining grammatical transparency.

Derivational affixes play a central role in word formation, contributing to the creation of new lexical items. These affixes are essential in the transformation of nouns, verbs, and adjectives, and their productivity varies across languages. Kornfilt [6] highlights that noun formation often involves suffixes like -ci (Turkish) and -ubi (Kazakh), which can indicate professions or habitual actions. Similarly, adjective derivation is marked by suffixes like -li (Turkish) or -iq (Uzbek), forming descriptive terms.

In the realm of verb formation, Turkic languages exhibit considerable variation. Turkish and Azerbaijani have active suffixes like -mak and -mek for verb formation, while Kazakh uses -u and -yu for action verb derivation. These productive affixes are contrasted with non-productive affixes, such as those forming diminutives (-çık in Turkish, -sha in Kazakh) or intensifiers (-cı in Turkish), which are less commonly used in contemporary speech.

Word-class change through affixation is another key feature in these languages. For instance, a noun like *ev* (house) can become an adjective *evli* (married), or a verb like *yaz* (write) can become a noun *yazı* (writing). This phenomenon underscores the flexibility and richness of Turkic languages in utilizing affixation for functional diversification.

Affixes are not merely structural elements; they also carry significant semantic functions, expanding the range of meaning in a language. In Turkic languages, affixes are used to convey nuances of polarity, modality, and degree, contributing to the expressive power of the language.

Derivational affixes in Turkic languages often serve to create abstract nouns, such as -lik in Turkish (güzellik – beauty) or -liq in Uzbek. These affixes facilitate the derivation of action-result nouns (e.g., yapmak – to do  $\rightarrow yapma$  – act of doing) and agentive nouns (e.g., -ci in Turkish, indicating a person who performs an action). Grammarians such as Haspelmath [4] point out that these derivational processes are not only syntactic but also contribute to the lexical expansion of a language, enriching its semantic fields.

Modality markers, such as the negation affix -ma in Turkish and Kazakh, or the ability affix -abil in Turkish, illustrate the role of affixes in conveying subtle distinctions of possibility, necessity, or impossibility. Negation markers like -me (Turkish) and -mas (Kazakh) are indispensable for forming negative statements, which are central to expressing polarity in Turkic languages. Obligation is often marked by affixes like -meliyim (Turkish), signaling necessity or compulsion, while ability is conveyed by affixes such as -ebil (Turkish), reflecting capacity or potential.

Affixes also express emotion or degree, for instance, -ce in Turkish to indicate intensity (e.g., güzelce – rather beautifully) or the diminutive -ci for smaller or endearing forms (e.g., kızcağız – little girl). Intensity and repetition can be conveyed by the use of specific affixes that modify the aspect of verbs, such as the use of repetition markers in Azerbaijani or Kazakh to indicate habitual or continuous action.

An interesting phenomenon in the semantic function of affixes is polysemy, where a single affix may serve multiple semantic roles depending on the context. For instance, the suffix -li in Turkish can indicate possession (evli – married, evli bir adam – a man with a house) or a characteristic (güzel – beautiful, güzellik – beauty). This ambiguity is noted by Kornfilt [6], who explains that such polysemous affixes add depth and flexibility to the language.

A comprehensive examination of Turkic languages reveals both shared core affixes and

language-specific innovations. Despite their common typological features, significant differences emerge in affix form, productivity, and semantic range. For example, the vowel harmony rules are present in languages like Turkish and Azerbaijani, but have been reduced or altered in languages like Uzbek, where vowel harmony has a diminished role in affixation. Language contact with Persian and Russian has influenced Uzbek's affixal system, introducing certain loanword structures that are not present in Kazakh or Turkish.

The study of affixation in Turkic languages reveals the intricate relationship between morphology and semantics, demonstrating how affixes serve both as structural tools and as conduits for meaning. By examining the inflectional and derivational affixes, we gain insights into the morphological flexibility and semantic richness of these languages. This comparative analysis underscores the significance of affixes in shaping the syntactic and semantic landscapes of Turkic languages and offers a valuable contribution to the field of linguistic typology and affixal semantics.

Conclusions. In summary, this study has examined both the structural and semantic functions of affixes in several representative Turkic languages, including Turkish, Azerbaijani, Kazakh, and Uzbek. These languages, while sharing a common typological foundation as agglutinative languages, demonstrate a rich array of morphological systems that serve crucial grammatical and lexical functions.

On the structural level, the affixes in these languages exhibit regular patterns in inflectional categories such as case marking, verb conjugation, and possession, which facilitate the precise expression of syntactic relations. Additionally, the derivational affixes contribute significantly to lexical creativity, allowing for the transformation of nouns, adjectives, and verbs. A notable feature across these languages is the regularity with which affixes are attached to word roots, highlighting their role in maintaining syntactic structure and enriching vocabulary.

On the semantic level, affixes function as key tools in expressing a variety of meanings, such as polarity, modality, and intensity, as well as the formation of abstract nouns, agents, and tools. The semantic flexibility of affixes is apparent in their polysemy, with certain affixes serving multiple meanings depending on the context. This versatility underscores the capacity of affixation to expand and refine the lexicon of a language while maintaining its structural integrity.

However, despite these shared core features, significant diversity exists within the Turkic family, particularly in terms of morphological rules, productivity of affixes, and semantic nuances. Variations in vowel harmony, for instance, are seen in the contrast between Uzbek and Turkish, as well as differences in the level of affix usage due to historical language contact and geographical distribution.

The study also reflects on the balance between morphological unity and diversity within the Turkic family. While affixation remains a unifying feature across these languages, the divergence in their use and the expansion of affixal systems illustrate how language contact and historical development shape linguistic evolution.

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## Салманова Шафа. СТРУКТУРНІ ТА СЕМАНТИЧНІ ФУНКЦІЇ АФІКСІВ У ВИБРАНИХ ТЮРКІВСЬКИХ МОВАХ

У цій статті розглядаються структурні та семантичні ролі афіксів у чотирьох типологічно значущих тюркських мовах: турецькій, азербайджанській, казахській та узбецькій. Ці мови, що характеризуються аглютинативною морфологією, широко використовують афіксацію — переважно у формі суфіксації — для кодування граматичних зв'язків та сприяння лексичному розширенню. За допомогою порівняльного аналізу флективних та дериваційних афіксів дослідження досліджує як формальні морфологічні структури, так і семантичний внесок цих афіксальних елементів. Результати дослідження виявляють типологічне ядро, спільне для всіх мов, зокрема в системах відмінкової флексії,

дієслівного відмінювання та дериваційних процесів. Одночасно аналіз визначає специфічні для мови семантичні функції афіксів, включаючи позначення модальності, заперечення, ступеня та абстракції. У дослідженні також розглядається роль гармонії голосних та фонологічної варіації у формуванні поведінки афіксів. Загалом, дослідження підкреслює афіксацію як центральний механізм як граматичної організації, так і семантичної розробки, що сприяє глибшому розумінню морфологічних стратегій в аглютинативних мовних системах.

Тюркські мови утворюють поширену та історично значущу мовну сімію, якою розмовляють від Східної Європи та Кавказу через Центральну Азію до частин Сибіру та Західного Китаю. Серед найбільш широко вивчених представників цієї сімії є турецька, азербайджанська, казахська та узбецька, які представляють окремі підгілки — огузьку, кипчакську та карлуцьку — тюркського лінгвістичного континууму. Незважаючи на регіональні та структурні відмінності, ці мови мають спільні фундаментальні типологічні характеристики, головною з яких  $\epsilon$  їхня аглютинативна природа.

В аглютинативних мовах граматичні та лексичні функції зазвичай передаються через лінійне додавання афіксів, причому кожен афікс зазвичай відповідає одній дискретній функції. У тюркських мовах ця морфологічна стратегія реалізується переважно через суфіксацію, оскільки префікси та інфікси надзвичайно рідкісні або відсутні. Ця система, що базується на суфіксах, дозволяє утворювати складні слова, зберігаючи при цьому морфологічну ясність та структурну передбачуваність.

**Ключові слова:** тюркські мови, словозмінні афікси, словотворчі афікси, словотвір, семантичні функції, структурні функції.