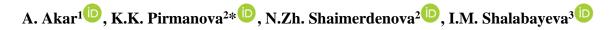
SRSTI 16.31.02

doi.org/10.55491/2411-6076-2023-3-3-14



<sup>1</sup>University Mugla Sytki Kocman, Mugla, Turkey; <sup>2</sup>Al-Farabi Kazakh National University, Almaty, Kazakhstan; <sup>3</sup>Secondary school named after S. Nurmagambetov No. 72, Shymkent, Kazakhstan \*e-mail: kunsulu.pirmanova@mail.ru

# METHODS OF TRANSFERRING FULL WORD-FORMATION AFFIXES IN THE NATIONAL CORPUS OF THE KAZAKH LANGUAGE

Abstract. This scientific article studies methods of transferring full word-formation affixes in the National Corpus of the Kazakh language. Affixes play an essential role in the forming of word formation and semantics of a language, and the study of their transmission is crucial for linguistic theory and practice. The purpose of the study is to analyze and systematize approaches to word-forming affixes in the corpus of the Kazakh language. The main areas of research include the analysis of the morphological features of affix transfer, as well as the identification of contexts in which various transmission options for transfer are possible. A short description of the scientific and practical significance of the work: the study allows us to better understand the proc esses of word formation in the Kazakh language and develop effective methods for automatic processing of texts in this language. It is also of practical importance for the creation of linguistic resources and the development of language applications. Brief description of the research methodology: the research methodology includes the analysis of textual material from the national corpus of the Kazakh language, as well as the use of linguistic tools and data analysis to determine the features of the transmission of affixes.

The main results and analysis of the research work, conclusions: the study revealed various ways of transmitting word-forming affixes, including morphological constructions, in the corpus of the Kazakh language. The analysis made it possible to identify the features and frequency of these methods. Value of the conducted research: this study contributes to the linguistic theory, and enriches our knowledge about the mechanisms of word formation and ways of transmitting linguistic elements in the language corpus. In addition, the results obtained can be useful for the development of language technologies and resources for the Kazakh language. Practical significance of the results: the study can be used in the creation of automatic systems of text processing systems in the Kazakh language, and the development of language applications, such as in linguistic training and translation. The obtained results and conclusions can become the basis for further research in the field of linguistics and computational linguistics.

**Keywords:** the national corpus of the Kazakh language, word-forming affixes, word-forming notation, linguistic analysis.

#### А. Акар<sup>1</sup>, К.Қ. Пірманова<sup>2\*</sup>, Н.Ж. Шаймерденова<sup>2</sup>, И.М. Шалабаева<sup>3</sup>

<sup>1</sup>Мұғла Сытки Кочман университеті, Мұғла,Түркия; 
<sup>2</sup>Әл-Фараби атындағы Қазақ ұлттық университеті, Алматы, Қазақстан; 
<sup>3</sup>№ 72 С.Нурмагамбетов атындағы Жалпы білім беретін орта мектеп, Шымкент, Қазақстан 
<sup>\*</sup>e-mail: kunsulu.pirmanoya@mail.ru

## ТОЛЫҚТАЙ СӨЗЖАСАМДЫҚ ҚЫЗМЕТ АТҚАРАТЫН ҚОСЫМШАЛАРДЫҢ ҚАЗАҚ ТІЛІНІҢ ҰЛТТЫҚ КОРПУСЫНДА БЕРІЛУ ЖОЛДАРЫ

Аннотация. Мақала қазақ тілінің ұлттық корпусында толықтай сөзжасамдық аффикстерді беру жолдарын зерттеуге арналған. Аффикстер тілдің сөзжасамы мен семантикасын қалыптастыруда маңызды рөл атқарады және олардың берілуін зерттеу лингвистикалық теория мен практика үшін өте маңызды. Ғылыми зерттеудің мақсаты, негізгі бағыттары мен идеялары: зерттеудің мақсаты қазақ тілі корпусында сөзжасамдық аффикстерді беру тәсілдерін талдау және жүйелеу болып табылады. Зерттеудің негізгі бағыттары аффикстің берілуінің морфологиялық ерекшеліктерін талдауды, сондай-ақ әртүрлі берілу нұсқалары мүмкін болатын контексттерді анықтауды қамтиды. Жұмыстың ғылыми және практикалық маңыздылығының қысқаша сипаттамасы: зерттеу қазақ тіліндегі сөзжасам процестерін жақсы түсінуге және осы тілдегі мәтіндерді автоматты түрде өңдеудің тиімді әдістерін жасауға мүмкіндік береді. Сонымен қатар лингвистикалық ресурстарды құру және тілдік қосымшаларды әзірлеу үшін практикалық маңызы бар. Зерттеу әдіснамасының қысқаша сипаттамасы: зерттеу әдіснамасы қазақ тілінің ұлттық корпусынан алынған мәтіндік материалды талдауды, сондай-ақ аффикстердің берілу ерекшеліктерін анықтау үшін лингвистикалық құралдарды және деректерді талдауды пайдалануды қамтиды.

Зерттеу жұмысының негізгі нәтижелері мен талдаулары, қорытындылары: зерттеуіміз қазақ тілінің корпусында сөзжасамдық аффикстерді, соның ішінде морфологиялық конструкцияларды берудің әртүрлі тәсілдерін анықтады. Талдау осы әдістердің ерекшеліктері мен жиілігін анықтауға мүмкіндік берді. Жүргізілген зерттеудің құндылығы: бұл зерттеу лингвистикалық теорияға үлес қосады, сөзжасам механизмдері және тіл корпусындағы лингвистикалық

элементтердің берілу жолдары туралы білімімізді байытады. Бұдан басқа, нәтижелер қазақ тілі үшін тілдік технологиялар мен ресурстарды әзірлеу үшін пайдалы болуы мүмкін. Жұмыс қорытындыларының практикалық мәні: зерттеу қазақ тіліндегі мәтіндерді өңдеудің автоматты жүйелерін құруда, тілдік қосымшаларды әзірлеуде, сондай-ақ лингвистикалық оқыту мен аудармада пайдаланылуы мүмкін. Нәтижелер мен тұжырымдар лингвистика мен компьютерлік лингвистика саласындағы қосымша зерттеулерге негіз бола алады.

**Тірек сөздер:** қазақ тілінің ұлттық корпусы, сөзжасамдық аффикстер, сөзжасамдық белгіленім, лингвистикалық талдау.

### А. Акар<sup>1</sup>, К.К. Пирманова<sup>2\*</sup>, Н.Ж. Шаймерденова<sup>2</sup>, И.М. Шалабаева<sup>3</sup>

<sup>1</sup>Университет Мугла Сытки Кочман, Мугла, Турция; 
<sup>2</sup>Казахский национальный университет имени аль-Фараби, Алматы, Казахстан; 
<sup>3</sup>Средняя общеобразовательная школа имени С. Нурмагамбетова №72, Шымкент, Казахстан 
\*e-mail: kunsulu.pirmanova@mail.ru

### ПУТИ ПЕРЕДАЧИ ПОЛНОПРАВНЫХ СЛОВООБРАЗОВАТЕЛЬНЫХ АФФИКСОВ В НАЦИОНАЛЬНОМ КОРПУСЕ КАЗАХСКОГО ЯЗЫКА

Аннотация. Данная научная статья посвящена исследованию механизмов передачи полноправных словообразовательных аффиксов в национальном корпусе казахского языка. Аффиксы играют важную роль в формировании словообразования и семантики языка, и изучение их передачи имеет существенное значение для лингвистической теории и практики. Целью настоящего исследования является анализ и систематизация способов передачи словообразовательных аффиксов в корпусе казахского языка. Основные направления исследования включают в себя анализ морфологических особенностей передачи аффиксов, а также выявление контекстов, в которых возможны различные варианты передачи. Исследование позволит лучше понять процессы словообразования в казахском языке и разработать более эффективные методы автоматической обработки текстов на этом языке. Это также имеет практическое значение для создания лингвистических ресурсов и разработки языковых приложений. Методология исследования включает в себя анализ текстового материала из национального корпуса казахского языка, а также использование лингвистических инструментов и анализа данных для выявления особенностей передачи аффиксов.

Основные результаты и анализ, выводы исследовательской работы: в исследовании выявлены различные способы передачи словообразовательных аффиксов в корпусе казахского языка, включая морфологические конструкции. Анализ позволил выявить особенности и частотность этих способов. Ценность проведенного исследования: данное исследование вносит вклад в лингвистическую теорию, обогащает наши знания о механизмах словообразования и способах передачи лингвистических элементов в корпусах языка. Кроме того, результаты могут быть полезными для разработки языковых технологий и ресурсов для казахского языка. Практическое значение итогов работы: исследование может быть использовано при создании автоматических систем обработки текстов на казахском языке, в разработке языковых приложений, а также в лингвистическом обучении и переводе. Результаты и выводы также могут стать основой для дальнейших исследований в области лингвистики и компьютерной лингвистики.

**Ключевые слова:** национальный корпус казахского языка, словообразовательные аффиксы, словообразовательная разметка, лингвистический анализ.

#### Introduction

The creation of the national corpus of the Kazakh language is an important issue not only to increase its volume but also to expand its linguistic possibilities. Linguistic capabilities mean reproducing various types of language analyses according to language levels.

A computer program that automatically marks texts is called a linguistic analyzer. The types of language analyses are divided into morphological analyzers, syntactic analyzers, phonetic analyzers, word formation analyzers, lexica-semantic analyzers, etc. And the linguistic analysis that this program performs is called "markup". In whatever language the first corpus was compiled, first, a morphological analyzer program was developed, and morphological designations were included in the corpus. Because the wordforming part of the word is easier to make out, especially in Turkic languages.

This is because Turkic languages belong to conjugated languages. Affixes are connected one on top of the other in order after the root. At the same time, the program quickly finds root words and word converters connected to it. Disassembling such a structure of a word is more difficult in inflective languages.

#### Materials and methods

Word formation suffixes belong to the synthetic way of creating a derived word. A derivative is the only way to create singular words in word creation. In the Kazakh language, a synthetic approach to word formation is characteristic of almost all word classes. This is also because the Kazakh language is conjugated.

This conjugated word formation refers to a systematic linguistic phenomenon. Since word-forming suffixes are based on a specific pattern in generating a word related to a particular word class. For example section – braid; room – exhibition – warehouse – braid – staple – label – task, etc.

At the same time, word-forming suffixes continue to spread from only one word. For example, know, knowledge, educated, educational, uneducated, cognitive, knowledgeable, knowing, to know, qualified, etc. This is called a word-formation cell in the language In particular, N.Oralbayeva notes that 105 derived roots are formed from the word "wind" (Oralbayeva, 2002: 12). Words descended from such a single root are called root words. Therefore, single-root words are words related to the same word-formation slot.

A word formation cell consists of different root words, that is, if there are too many root words in some word formation cell, then the number of root words in some word formation cell can be only two. Therefore, the relation of root words to the creation of a derived word will be different.

At the same time, the root words in the word-formation unit continue to be from different word classes. For example, *knowledge is a noun, knowledgeable is an adjective, knowing is a noun; see is a verb, exhibition is a noun, intelligent is an adjective, and so on.* 

In a word formation unit, word formation continues to spread from both the root and the derived root. Depending on it, the order of occurrence of the derivative word appears. It is said to be a word-building chain. For example, *know, knowledge, educated, educational, uneducated, cognitive, knowledgeable, knowing, to know, qualified, etc.* Here are three word-forming chains.

All derived words consist of words that have a lexical meaning existing in the language. Therefore, both the root word and the derived word have independent lexical meanings. Although derivative words are independent words of new meaning, it is connected with the meaning of the root word from which they are formed, that is, all homogeneous words have a semantic connection, and proximity with each other, even if they are independent words.

Word-formation affixes are not always the same in terms of word-generating functions. Some word-forming affixes are active, and some are passive, depending on this property, the language divides them into productive, and unproductive.

There are also affixes in our language that create a pure word that is not related to word transformation. We called such affixes "affixes that perform a fully word-forming function." In addition, there are also cases in our language in which the word is not formed, that is, the form-generating affixes are formed through semantic development, lexicalized, and giving rise to a new word. The affixes that give rise to such a form we have called "affixes that fulfill a semi-verbal function". In structural studies, such affixes are usually called "functional affixes" (Zhanabekova). We can also call these affixes "dual-function affixes", relying on the function of generating forms and creating words.

A clear distinction between word-formative and form-formative affixes is necessary when preparing the development of morphological and word-forming designations to be included the corpus. After all, automatic text recognition is based on formal features of linguistic units. In addition, when determining the composition of a word form, the computer program should automatically recognize its root, the way of its creation, if it is a derivative word, which word-forming affixes, and which word-converting affixes. For this purpose, root words, derivative words, word-forming affixes, and form-generating affixes are entered into the program as a linguistic base.

With automatic text recognition, first of all, the morphological analyzer software finds the roots of words. The root of a word is called a lemma. If this is the case, then it is necessary to develop a linguistic instruction, that is, to indicate that suffixes are word-forming affixes or formative affixes. At the same time, in order to clearly distinguish whether the person attached to the root word is a word-forming suffix or a formative suffix, it is necessary to define specific criteria for classifying affixes. That is, we consider which group of these affixes are word-forming affixes in the field of word formation, which part is a formative affix that changes the lexical meaning of a related word and does not create a new meaningful word, but only changes its grammatical meaning, and we consider them in the context of the field of morphology.

#### Literature review

There are different groupings in the classification of affixes not only in Kazakh linguistics but also in Turkology in general.

In the work of the scientist-founder of Kazakh linguistics K. Zhubanov "research on the Kazakh language", the problem of affixes is also considered in detail. The scientist preferred to call "adverb" instead of the previously used term "suffix" (Zhubanov, 1999: 234).

It is in this pattern that the classification of affixes into only two is found in the works of other Turkic scholars. In this row, we can name E. V. Sevortyan, K. M. Musaev, L. A. Pokrovskaya, and others.

In this row are named V. N. Hangeldin, F. G. Iskakov and A. A. Palmbakh, B. O. Oruzbayeva, Kazakh scientists A. Iskakov, A. Kalybaeva, N. Oralbayeva and others.

In addition, one of the classification patterns is to group affixes back into two groups. According to this classification, the affixes are divided into 1-word-forming affixes and 2-form-generating affixes. This classification model differs from the previous ones in that the former word-forming affixes remain in the same state, and the form-generating or word-transforming suffixes merge with the conjunctions to form a single series of form-generating affixes.

From Kazakh scientists, we can say that the grouping of affixes in this model, that is, the classification into word-forming and form-forming affixes, begins with the works of Y. Mamanov. The scientist said: "Full-meaning noun words, which are transformed by grammatical forms in a sentence, are used only in two forms: either in the form of a root word or in the grammatical form. Thus, words to which annexes are attached in the Kazakh language form either a derived root word (lexical whole), which is part of the vocabulary of the language, or a grammatical form characteristic of a certain class of words. It is possible to correctly recognize the morphological structure of a word from a linguistic point of view only by dividing the additions in the Kazakh language into two groups, word-generating and form-generating, according to linguistic materials", writes (Mamanov, 1973: 48). In the textbook "Modern Kazakh Literary Language", compiled by M. Sergaliev, A. Aigabylov, and O. Kulkenova, the affixes are also classified as wordgenerating and form-generating in this order (Sergaliyev, 1991: 9). S. In Isaev's classification, affixes are first divided into word-forming and form-generating. The scientist emphasizes the scientific importance of calling the word-forming suffixes "word-forming affixes", which are given in previous grammars: "In Kazakh linguistics, the properties of the affixes that serve as the basis for classifying them into certain types, the meaning of the appendices, the semantic nature, the use function, the classification system are not fully defined." Also, in the classification of affixes, one divides affixes into 1-word-forming affixes and 2-formative affixes, depending on whether the value it gives is the main property, and the function it performs is the second property carried out using this value. Further, form-generating suffixes are internally distinguished as suffixes and conjunctions, and the suffixes themselves are again classified into micro types in terms of their ability to change the meaning of the word and preserve the grammatical nature of the root. They are: 1-modifiable or lexical-grammatical suffixes; 2 – purely grammatical or categorical suffixes.

The scientist points out some of the affixes that are controversial in Turkology, in particular, the suffixes that give rise to the verb, the reinforcing verb, and the tone value of nouns, among the form-generating affixes, and gives specific facts that they cannot be word-forming affixes. These affixes are called modifiable suffixes. "Although modifiable suffixes do not create a new meaningful word, do not completely change the lexical meaning of the root, the additional grammatical meaning of the root, together with the adverb, adds a semantic tone to the lexical meaning of the root word and retains the grammatical character of the root in terms of its use in the speech process, thereby resembling the derived root in the framework of one-word class" (Isayev, 1998: 226).

Also, another difference in the classification model of S. Isaev is that the plural takes as a basis the lack of a word-linking function and transfers it in a series of suffixes that give rise to a grammatical form. Another difference in the classification of S. Isaev is the introduction of a group of "functional affixes" as one of the branches of word-forming affixes. The suffixes -dai/dei, -sha/she, -siz/sen, -gy/gi (added after the genitive case), affixes that connect after the gesture name "y" - shy/shy, etc. In all grammar of the Kazakh language, they were previously considered as nouns, related adjectives, and adverbial suffixes.

#### Results and discussion

In addition to the above-mentioned classification models of affixes, Turkology has undergone changes in the suffix division based on the approximation of the functions of both word-generating and form-generating affixes and the difference in the intermediate form. Among such affixes, we can mention the persons -gy/gi, -shy/shi, -dai\dai, -ly/li, -syz/size, -lyk/like, -sha/sha, etc. In the grammar of the Kazakh language, these are mainly defined as word-generating productive suffixes. The first to mention the

intermediate position of these affixes was the Tatar scientist V. M. Nasilov. He identifies one group of affixes that continue to act as word-forming affixes and inflectional affixes, distinguishing them as an intermediate category by the term "Inclusion Affixes" and inserting a third group into the affixes section. The scientist did not specify all the affixes we mentioned above, including the affixes -syz/siz, -sha/sha,-lyk/lyk, -rak/rek, and gives them the following definitions: "If one is consistent in the treatment of nominal categories, one will certainly conclude that the structure of Turkic languages is characterized by one more feature, which naturally outlines (in addition to the category of word-formation and word-formation) the category of inclusion, that is, a special form through which a lexical category obtains the property of being a definite component of a word-combination as a definite grammatical unit" (Nasilov, 1958: 36).

A sample of the classification of affixes by the Tatar scholar F. A. Ganiev:

- 1) word-generating suffixes (called suffixes);
- 2) grammatical suffixes (form-generating);
- 3) stylistic suffixes.

Stylistic suffixes:

как/каі (kugarchenkoy-dove),

- ksh/anekesh (younger brother),
- chyk/chek (atchyk-horse).

The phonetic suffixes of nouns in the Kazakh language are given by F. A. Ganiev as a group, in addition to word-forming and form-generating ones. The author gave the following definition of stylistic affixes: "If suffixes do not form either a new word or a grammatical form of a word, but only change its stylistic coloring, then such suffixes are called stylistic" (Ganiev, 1974: 48). Although the scientist does not include affixes as branches in his classification, among the controversial issues, he calls the affixes -lyk/lik, -shy/shi, -ly/li, -syz/siz as "semi-functional" suffixes that approximate the properties of both word-generating suffixes and grammatical suffixes. Unlike Nasilov V. M., Ganiev F. A. does not single out these affixes into a separate category, so it does not include affixes. They write about their character: "In scientific descriptive grammars, each multifunctional suffix is treated in its entirety. Meanwhile, they should be characterized from two points of view: from the point of view of grammar and word formation. The criteria for distinguishing lexical and grammatical meanings of these suffixes should be clarified and concretized" (Ganiev, 1974: 53).

The researcher of Kuman languages M.A. Khabichev has differences in the classification of applications. These include:

- 1) word-forming affixes;
- 2) form-generating affixes;
- 3) syncretic affixes;
- 4) word- transforming morphemes (inflection).

The author attributes syncretic affixes to word-formers, formative, that is, -ly/li, -syz/siz -lyk/lik, affixes performed by two different functions. "Part of the affixes performs a syncretic, i.e. word and formative role" (Habiyevich, 1989: 36).

And -dai/dei, -dagy/degi, -sha/she, etc. affixes are placed in a series of form-generating affixes. From the affixes that we call syncretic, -ly/li, and -syz/siz we describe individually the circumstances in which the word is generated and the conditions in which the form is generated. -gy, -gi the affix is defined as a generative adjective and is considered in word formation, and when it comes after the genitive cases, it connects them to the form-generating.

Thus, from the above considerations, we can see that there are different variations in the classification of applications in Turkology. In addition to the classification, we observe phenomena that also ambiguously refer to word formation or form formation of some linguistic categories.

In the Kazakh language, I. Mamanov argued that the first thing to consider when classifying affixes is their word formation and changing the grammatical meaning of a word into two types (Mamanov, 1973: 22). And in the above comments, in addition to these two types, stylistic, temporal, "inclusion affixes", syncretic, etc. are presented in the classification of affixes. Consequently, it can be seen from this that there are linguistic phenomena that cause problems and ambiguity in the classification of affixes.

The following are mentioned as criteria for distinguishing between word-forming and form-generating affixes.

- Word-forming affixes are attached to words in a complex way, and form-generating affixes are attached to all words related to the word class to which this affix belongs, or to the entire group of that word class, thus creating grammatical abstraction.

In textbooks and grammars of the Kazakh language, most of the word-forming suffixes of each word class meet the above criterion, that is, they change the lexical meaning of the phrase, create new meaningful words, and analyze the connected words, and do not massively lie down. Suppose that below we focus on the word-forming suffixes of one of the main active classes of words – nouns and adjectives.

From the suffixes that generate nouns, it is known that productive ones are *-lyk/lik*, and *-shy/shi* suffixes. From the very beginning, such words were made that sounded critical and caused confusion. For example, fellow, coeval, rival, playmate, countryman, colleague, etc.

This affix in the above examples combines the words road, time, sun, nest, earth, and letter, changes the lexical meanings of their words, and creates the names of humanity from the noun words of the universe. Furthermore, according to the second criterion, this suffix cannot be added to any noun words.

For example, the words taldas, agashtas, surettes, yesiktes, nandas, etc. are absent, the semantic valence of words is also preserved here. There are not many derived nouns formed by the suffix -lak/lek, -dak/dek, -tak/tek. For example, glacier, sedge, wintering, pollen, (muzdak, moindak, kystak, shandak) etc. this suffix is also substantivized, becoming a complement which first gives adjectives. The adjective is found in the following words: rattling, flabby, shiny, frosty, loose flabby, etc. Although we pay attention to the words to which the suffix -dak/dec is attached, each of the words ice - glacier, winter - wintering, dust - pollen, have an independent meaning. Furthermore, this suffix is not necessarily attached to the root of any noun. For example, there are no such words as housedek, tabledek, booktak, doortek. The participle of shak/shek refers to a number of unproductive suffixes. These affixes are not so much in our language. For example, honeysuckle, fold, fan, kiosk, throat, production worker, footstep, ladder, teenager, bride, woman in labor, etc. In these words, the shak/shek affix is created to express words with meanings such as "the place where one flutter", and "the place where one swallow", in the word's teenager, and bride, suffixes that give rise to the tone of the noun are similar in meaning. There are the concepts of a teenager as a young child and a bride as a young bride who has just arrived. However, the word "teen" is not personal here.

-hylik/shilik is a compound suffix, formed from the union of the suffixes -shy/shi and -lyk/lik. These consonants sometimes form semantically similar words when used individually and together, for example, humanity-human, trouble-trouble. And sometimes personal pronouns do not make a word. For example, there is a public and there is no public. The abstract is active in the creation of noun names: humanity, poverty, humanism, trouble, abundance, minority, etc.

The noun-generating suffix -dyryk/dirik belongs to the unproductive suffix. It occurs in words such as breastplate, eyeglass, headband, muzzle, caviar, etc. As an unproductive addition, it can be seen from the condition of mandatory accession that this is a purely word-forming suffix. The suffix -ym/im was not initially productive in creating nouns. N. Oralbaeva notes that it formed nouns only from Arabic, and Persian words (Kazakh grammatikasy, 2002: 302), e.g., blessing, mercy, and communication. However, the words pasture, and section, as well as currently this suffix has become a productive affix when creating terms. For example, pronunciation, writing, listening, speaking, publishing, staging, etc. It is known that the root of these words are verbs, and the newly derived word is nouns. If so, then from the point of view of creating a new meaningful word, the requirements for word-forming suffixes are completely out of order.

-uysh/uysh affix is active in creating tool names in our language. For example: scratcher, pin, sieve, screwdriver, support, motor, gauge, etc. This app was attached to verbs and created noun names. In the composition -u originally had the name of the gesture. That is -u+ysh subsequently merges. Active in creating terms. For example: attribute, object, adverbial etc. This affix is also similar to the -gysh/gish personality. Because both mean the tendency to gesture. This affix is also not connected to all when it is connected to verbs, it creates nouns that have some kind of name, are attached to the verbs of the action, and have the meaning of a tool that performs the same movement. - the kai/kei affix is among the unproductive affix. It is found in the following words: square, sunny, backrest, saliva, breast.

The suffix *-kesh* refers to the adjective, does not obey the law of consonance. For example, coachman, watchman, means something similar to an affix *-shy/shi*, so creates a meaningful word for one busy. The chariot in these words is both a thing and coachman is a person. At the same time, the book is not attached to any nouns, as a painter, or artist.

- the ker/ger (-er) affixes also applies to the input personality, since it does not obey the law of consonance. Previously, made the words jeweler, artifact, bayonet fighting, healer then affixes physician, candidate, prize-winner, hero, employee, entrepreneur, veteran, etc., and nowadays work actively on creating new affixes. This affix is productive in creating human names from the universe names. Root words are connected depending on their semantic valence.
- paz (-ist, -er, -or, an) affix is also part of the line-up and made a few words, such as artist, stormtrooper, cooker, and winner. Also, adjectives cause flattery. When creating these additional nouns, the names of humanity are often made from the names and the universe, that is, the names of ancestors.

In our language, such input affixes as: -khan, stan, etc. Where -khana affix creates words with a local meaning. When attaching an address, it connects only with words that can be a place. For example, there are no words like earthplace, skyplace, doorplace, or waterplace.

- it is known that the affixes "kak/kek" is a compliment that forms adjectives, but there are also those that have turned into nouns: cholera, stick, etc.

The suffix -gy/gi is a productive suffix, conjugated with a verb, forming real nouns. For example, potion, broom, plane, milling cutter, drill, scythe, yeast, blow, kick, fatigue, laughter, feed, etc.

Consequently, this suffix creates a word-formative meaning as the name of the gesture. This affix was often attached to action verbs, creating meaningful words, such as the names of the means that perform the same action, and the name of the substance (yeast) needed to implement this action.

The noun has other word-forming suffixes besides the mentioned additions (Kazakh grammatikasy, 2002: 299). It is known that adjectives are divided into qualitative and relative, and qualitative adjectives are often root adjectives. And relative adjectives are derived adjectives. Because, as the name implies, they express the presence of another object. Among the suffixes that form derived adjectives, the suffixes -dai/dei, -ly/li, -lyk/lik, -siz/syz, - gy/gi performs the first form-generating function, the word-forming function is performed by the phenomenon of lexicalization. For this reason, these affixes are classified as functional affixes. Since we will consider these affixes specifically in the section on affixes that perform a semi-word-forming function, we will not dwell on them in this section.

- the "dak/dek" affix is often attached to nominal words. Represents a propensity for any trait. – gysh evokes words similar to his personality. For example: frivolous, high-speed, elastic, low, shaky, etc. These affixes are also adjectives attached to the word.

Affixes -shy/shi is not considered productive in the formation of adjectives. There are few quality words in this supplement. For example, deceptive, fleeting, average. A common characteristic for all of the adjective—generating affixes listed below is that their conjugated words change their lexical meaning, giving rise to a new meaningful word and not being conjugated to any word. Therefore, there is no dispute in the recognition of all these suffixes as word-forming suffixes.

- shyl/shil: colonial, gossipy, entertaining
- mal/mel: overnight, popular, fraternal
- maly/meli: infectious, mirrored, dissected, sectioned
- ymdy/imdi: suitable, understanding
- yk/ik/k: smelly, thin, full, lying down, cowardly
- shak/shek: grumpy, jealous, hot-tempered
- shan/shen: painful, irritable
- gak/kek: bold, sticky, slippery
- ker: cunning
- agan/egen: far-sighted, filtered, wicked

There are word-forming affixes of other word classes, such as this one.

We will not be able to analyze the compliance of each word-forming affix with this criterion, so we will briefly focus on language categories that have clarifying problems in word-forming and form-forming activities.

Above, specialists in Turkology, specialists of the Kazakh language, in addition to two-functional affixes (-dai /day,- sha /she,- gi/gy, ly/ly, -syz/siz), indicate in the classification of affixes that cause the meaning of the tone of the noun, the category of the degree of the adjective suffix, the category of the verb voice. Among them, the voice suffixes mainly relate to the formative affix, since they express the relation of the action to the object and subject and are the grammar of the verb, but also have a lexical and word-

generating function. Therefore, we consider the voices in the section of affixes that perform a partial word-formation function.

One of the categories that are considered ambiguously regarding word formation and form generation is suffixes that give rise to the tone of nouns in the Kazakh language. They are given in a separate singular in the chapter dedicated to nouns, that is, they are not included in the category of noun-generating suffixes. Therefore, this means that this group of suffixes differs from noun-generating suffixes in their lexicagrammatical nature.

For the first time in Turkology about tone suffixes N.A. Baskakov in the work "Karakalpak language" points to the topic "Affixes of affectionate and diminutive forms" (Baskakov, 1952: 411). Then A. N. Kononov in the grammar of the Uzbek language analyzes thirteen suffixes that create nominal words with the name "Affixes forming forms of subjective evaluation of nouns" (Kononov, 1960: 321).

In Kazakh linguistics, these suffixes are considered in the dissertation of A. Tuleuov, who first studied the word-formation of special nouns and adjectives "comparative affixes with modern Kazakh literary language" (1949) (Toleuov, 1949: 28). The author gives them under the title "diminutive, pampering suffixes that give rise to nouns from nouns" and analyzes eleven suffixes.

A. Toleuov notes that the reason for separating suffixes from other nouns into a separate group is that their conjugated words do not have a new meaning, they change the meaning of the connected word. Here is an example from the words of the author: "The difference of morphemes included in this group from the above-mentioned suffixes when added to a word does not change its main meaning, but only transforms, giving some auxiliary meaning, a shade. On the other hand, suffixes included in this group cannot change their attached word and create a new meaningful word but only transform" (Toleuov, 1956:48).

They should be recognized as sub-categorical forms of nouns, and therefore suffixes that give rise to the tone of nouns" (Yskakov, 1991: 165). Therefore, A. Iskakov says that tone does not make meaningful suffixes a new meaningful word from the word connected, but adds a semantic tone. However, the noun from the noun is not given in one row with the generating suffixes, indicating it as a separate group of nouns.

In the work of N. Oralbay "Word formation of the Kazakh language", twenty-four types of these suffixes are indicated (Oralbayeva, 2002: 159). In Kazakh linguistics, under the guidance of N. Oralbayeva, Z. Kurmanaliva defended his thesis on the topic: "Semantic structure of derivative nouns with a tone value".

Therefore, according to Z. Kurmanalieva, the tone-valued suffixes of nouns do not change the lexical meaning of the connected word, do not create a new meaningful word, but only transform it. For example, we cannot say that the words agaeke (bro), apaeke (sis), as well as the words apazhan (auntie), agazhan (great-uncle) are derived words, and when they are added to proper names, say, Make, Sake, Take, as well as the existing Zharkynzhan, Erkinzhan, give rise to a new meaningful word. Thus, it is conditional to recognize these suffixes, which are given in the composition of nouns, as word-giving. «It is known that they are present in derived words since the tonal meaning is created as a result of word-forming action. Since it has the meaning of derived words, they belong to lexically meaningful words," the researcher calls them modified derived words (Kurmanaliyeva, 2004: 51).

In addition, Z. Kurmanalieva explains that the inclusion of words formed by these suffixes in explanatory dictionaries is also a criterion for recognizing them as word-forming suffixes: "Apatai, agatai, apazhan, agayeke, agash, etc. The examples retain the lexical meaning of apa (aunt), aga (brother), but the suffix added to them added a different semantic shade on top of this lexical meaning. In the language, each of them is used as a separate lexical unit and acts as a separate word. In dictionaries, they are referred to as registry words. Therefore, they belong to word formation" (Zhunisbek, 2018: 44).

In the ten-volume explanatory dictionary of the Kazakh language, words formed by tone suffixes are most often revealed by synonyms. For example: AGAJAN substance. Agajan, agake. Or an uncle thing. Agazhan, agatai. APEKE substance. Apazhan, apatai. One and a half is revealed by the meanings that they add to the connected word. For example: ATAEKE substance. The use of the word grandfather in the meaning of respect, reverence.

The presentation of these words in dictionaries, to which tonal suffixes are attached, is not the main condition for recognizing them as word-forming suffixes. This is because, in explanatory dictionaries, words with the affix of such degrees and voice suffixes will continue to be entered as registers. In this respect, their inclusion in dictionaries, even if they do not have word-forming suffixes, of course, again

causes controversy. The language nature of a group of affixes that are in such a mezzanine in the Kazakh language is still not fully disclosed.

Paying attention to the given definitions in the fifteen-volume dictionary, it can be noticed that many of them are often used as a reversible nouns, used in the sense of affection and respect.

Among the suffixes that generate the hue value, the affixes that add the diminutive value do not generate noun words. For example, a bag, a toy, a foal, a puddle, a hut, etc. It seems that the 42-tone value suffixes indicated by Z. Kurmanaliva need to be internally divided into word-forming and word-transformative suffixes. After all, there is a semantic difference between the mentioned words puddle, house, and bag and the words agaeke, apatai, aketai. The first of them is formed as the name of a small substance, which gives rise to a new name for the substance. And the second only gives a stylistic semantic tone to its linked words. Thus, it is controversial to consider all 42 tonal applications proposed by Z. Kurmanalieva at the same level. Although tone-valued suffixes conflict with the first criterion of word formation and do not form a new meaningful word, the second criterion corresponds to the condition of conjugation, that is, we cannot connect these suffixes to any noun root. So far, we have considered word-generating affix.

Another controversial question about the word combination of the category of the degree of word-forming and form-generating function of the affixes -gysh,- kyl,- gyltym, - shyl, etc.

In the textbook "Modern Kazakh language" by A. Iskakov, the suffixes -kyl,- gyl,- kylt,- gyrt,- tym,-shyl/shil,- kay, -an comparative degrees relative to the face are transmitted along with the suffixes -rak/rec and -lau/leu. Thus, A. Iskakov, pointing out four types of degree, recognizes suffixes differing in word-forming, form-generating character as an indicator of the comparative degree of relative form, - gysh, -kyl, -kyltym, -shyl, etc. (Iskakov, 1991: 28).

There is no consensus on the latter, that is, whether they are degree suffixes or word-formative suffixes. The reason for this is that the named suffixes coincide with the semantics of suffixes in terms of the severity of the trait. But the second sign of the differentiation of word-forming and formative affixes, depending on the conditions of word-forming attachment, tends to be the roots of adjectives. This condition, as a rule, goes beyond the criteria imposed on word-forming affixes. In this regard, in Kazakh linguistics Y. Mamanov, in this direction, S. Isaev recognized these suffixes as word-formative suffixes and only the suffixes -lau/leu and -rak/rek are mentioned as comparative degrees of personal (Isaev, 1998: 198). Thus, the suffixes -gush, -kyl, -gyltym, -shyl, etc. are included in the word-forming suffixes in the works of Y. Mamonov, and S. Isaev.

Suffixes -gysh,-kyl,-gyltym, - shyl, etc., in turn, were presented in the dictionary as a word-forming unit in all two-volume, ten-volume, fifteen-volume dictionaries, although they are indicated as part of the degree category. Since, as already noted, these suffixes, although expressing a semantic tone about the redundancy or inferiority of the criticism and being close to the degree of semantics, fulfilled the same condition of word formation as the word-forming affixes, it was necessary to recognize the words to which these affixes were attached as word-forming units. If so, the suffixes -gysh, -kyl, -gyltym, - shyl, etc. are recognized as word-forming units and are listed in the dictionary of explanatory and do not cause any disputes.

The suffix *-rak/rek*, and *-lau/leu* personality is massively attached to qualitative adjectives. That is, any quality can be transformed into a meaningful word with these personalities. Such a universal possibility of affixes in Kazakh linguistics is called grammatical abstraction by the scientist Y. Mamanov (Mamanov, 1973: 22).

Degree forms a grammatical category, has a power (categorical) meaning in a generic concept, and creates a mass coherent grammatical abstraction. Since in modern grammar only -rak/rek and -lau/leu are called degree suffixes, we indicate only these two applications in my morphological notation as morphological units. And since words with an amplifying word are included in the dictionary registry and it is difficult to automatically distinguish them from other double words, we have included them in the registry of single-root words.

Now in the Kazakh language, the problem that is reflected in the lexical and grammatical group of form-forming affixes, such as the category of degrees is the formative and word-forming function of voice affixes. In Kazakh linguistics, the term "voice" begins with the work of A. Baitursynov. The scientist gave the following definitions to the voice: "The final form of the verb is the active and passive voice. Different

suffixes are added to the root of these two voices and various words are born. Voices suffixes: 1 – generates verb words from one voice, 2 – generates pronouns from voices. Except for active and passive voices and others are the indirect passive voices" (Baitursynuly, 1992: 254)." The scholar notes that the suffixes kylastyr, -ynkyra, are also designated in a number of voice affixes.

K. Zhubanov concludes:" A voice is a category that reflects the relationship between the subject and the object in terms of meaning." The scientist brings verb forms to seven. These are: Reflexive voice, Reciprocal voice, Incentive voice, Passive voice, Intransitive voice, Active voice, Progressive voice (-ynkyra, -inkire). When determining the place of voice affixes, the author defines them as adverbs that can be located between the verb base and the negation modifier (Zhubanov, 1999: 382). All the studies written in the 1940s provide data on voices and their types. However, there was no consistency in grouping them and dividing them into types. Once was divided into three, four, and five.

Word-Formation (generating). N. A. Baskakov attributes the category of voices to the word-generating group (Baskakov, 1952: 306).

Form-Forming (generating). The number of definitions of voice affixes as form-generating is very large in Turkology. B. O. Oruzbaeva believed that voice affixes do not exclude the word-generating function, but mainly give rise to grammatical meaning. A.M. Shcherbak, taking as a basis the peculiarity of voice affixes to form a grammatical category, defines the form generating (Sherbak, 1981: 32). F. A. Ganiev also includes voice persons in the group of grammatical affixes.

In the Kazakh language, I. Mamanov considers the category of voice to be purely grammatical. The scientist said: "The derived roots of the verb and the voice form are not the same, they are two categories. Derived root verbs formed by a suffix (play, think, extensive, adapt) are used only to the extent that the root word, whose suffixes do not express adding to grammatical meaning, forms only a group of similar phrases. And voice suffixes are attached to the substantive and derived root verbs without changing the lexical meaning of words, giving them grammatical sense, creating a grammatical model." The author defines voice affixes as modification forms in which a purely grammatical meaning is added to the root (Mamanov, 1973: 6).

S. Isaev defines the formative function of voice affixes as relying on the possibility of changing the meaning of its conjugated word and joining to the word. According to the author, voice affixes do not always change the lexical meaning of the verb root to which they are attached. Secondly, passive and reflexive voice affixes can be associated with all transitive verbs. That is, the ability to conjugate the entire specific group of verbs (Isayev, 1998: 173-177).

*Two-functional*. Some determinants state that voice affixes are performed by two different functions. These are A. A. Yuldashev, E. V. Sevortyan, etc.

The researcher of the Bashkir language A. A. Yuldashev, noting the one-sidedness of the definition of voice affixes only as word-generating, considers the involvement of the voice form in word formation and form-forming separately (Yuldashev, 1958: 87). The author defines voice forms mainly as word-generating.

As we can see from the above analysis, in Turkology, voice affixes are considered both word-generating and grammatical categories. In the "Word Formation System of the Kazakh Language", published in 1989, voice affixes are word-generating.

Voice affixes, firstly, do not always form a word-generating series, but can only express the object-subject relationship and form a grammatical category. Secondly, voice affixes can be attached to a specific as a whole verb group and create a grammatical abstraction. Its appearance in the composition of some words and recognition as a new meaningful word-forming unit should be considered not as a result of the word-forming ability of voice affixes, but as a result of the semantic approach of word-formation, that is the development of meaning (Zhanabekova, 2016: 55).

#### Conclusion

As part of this study, we set ourselves the goal of analyzing the mechanisms for the transfer of full-fledged word-forming affixes in the national corpus of the Kazakh language and identifying their features. To achieve this goal, we used the analysis of textual material in the corpus, as well as linguistic tools and data analysis.

The results of the study allowed us to identify various ways of transmitting affixes in the corpus, including morphological and syntactic constructions. We also evaluated the frequency and contexts in

which different transmission options are possible. These results confirm our initial assumption that the transfer of affixes in the Kazakh language has its unique features.

Taking into account the results obtained, we conclude that significance of this study for linguistic theory and practice. It has enriched our knowledge of the mechanisms of word formation and the transmission of linguistic elements and is used in the development of linguistic resources and affixes for the Kazakh language.

The prospects of the research include further deepening into the analysis of the transfer of affixes, taking into account different dialects of the Kazakh language and a wider corpus of texts. It can also become the basis for the development of tools for automatic processing of Kazakh texts and further research in the field of computational linguistics.

This research has been/was/is funded by the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan (Grant No. AP15473441).

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