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Contents / Мазмуну / Содержание

N. Dzharkinbaeva, A. Bekturova, G. Baigobylova, Ch. Naimanova, G. Dzhumaliev	
Cultural conceptualisations of emotion: Heart metaphors in Kyrgyz and English	8
Н. Жаркинбаева, А. Бектурова, Г. Байгобылова, Ч. Наиманова, Г. Жумалиева	
Эмоцияларды маданий концептуалдаштыруу: кыргыз жана англис тилдериндеги жүрөк метафоралары	8
Н. Джаркинбаева, А. Бектурова, Г. Байгобылова, Ч. Наиманова, Г. Джумалиева	
Культурные концептуализации эмоций: метафоры сердца в кыргызском и английском языках	8
A. Murzabaeva, Ch. Talkanova, V. Kuznetsova, A. Bekbalaev	
Function words in Kyrgyz and German: Classification and contrastive analysis	21
А. Мурзабаева, Ч. Талканова, В. Кузнецова, А. Бекбалаев	
Кыргыз жана немис тилдериндеги кызматчы сөздөр: классификациясы жана салыштырма анализи	21
А. Мурзабаева, Ч. Талканова, В. Кузнецова, А. Бекбалаев	
Служебные слова в кыргызском и немецком языках: классификация и сопоставительный анализ	21
A. Seydenaliev	
Semantic divergence of cognate verbal stems in Kyrgyz and Turkish languages	34
А. Сейденалиева	
Кыргыз жана түрк тилдериндеги тектеш этиш негиздеринин семантикалык дивергенциясы	34
А. Сейденалиева	
Семантическая дивергенция когнатных глагольных основ в кыргызском и турецком языках	34



Cultural conceptualisations of emotion: Heart metaphors in Kyrgyz and English

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Abstract. The study of heart-related verbal metaphors expressing emotions in various languages remains a relevant area of modern cognitive linguistics. This is particularly important in the context of the need to understand different cultures and ensure effective intercultural communication. The aim of this study was to investigate and analyse heart-related verbal metaphors in the Kyrgyz and English languages. The methodological framework was based on Z. Derbisheva's cognitive-conceptual model and the Metaphor Identification Procedure. The British National Corpus and the Manas-UdS Kyrgyz Corpus were employed in the study. The findings revealed a considerable number of heart-related metaphors in both languages, indicating the significant role of the heart in the conceptualisation of emotions. It was established that in the Kyrgyz language, metaphors related to fear and emotional pain are particularly well developed. The metaphorical landscape demonstrated a strong influence of the nomadic tradition through images of nature, permeable containers and organic processes. In English, metaphorical models are characterised by a mechanistic and individualistic orientation, including metaphors of control and containment. It was also found that, although some metaphorical mappings are universal, their development differs considerably across languages. It was shown that metaphorical systems not only reflect cultural worldviews but also shape them. The results obtained may be applied by linguists, translators and specialists in intercultural communication in theoretical research, translation practice, and the development of intercultural competence programmes. Thus, this study contributes to the advancement of cognitive linguistics and intercultural studies

Keywords: heart-related verbal metaphors; cognitive linguistics; cross-linguistic comparison; somatic metaphor; conceptual metaphor theory; nomadic worldview

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Introduction

The study of emotional metaphors, as a branch of cognitive linguistics, has an importance with the rising role of cross-cultural communication as a central topic of the modern world. Heart-related verbal metaphors are seen to have a special position of prominence within the realm of emotional experience. The fact that the cognitive role of the heart is a universally shared phenomenon, whereas the metaphorical development surrounding it is seen to vary considerably from one culture to another. The study of emotional metaphors, especially within two languages like Kyrgyz, a Turkic language with a nomadic heritage, and English, a language with a heritage of industrialised, individualistic culture, promises a special opportunity to explore the universally shared bases of human emotional cognition, together with the culturally specific routes through which these bases are realised.

The study of emotional metaphors is grounded in Conceptual Metaphor Theory, which views metaphors as fundamental cognitive tools for understanding abstract concepts through bodily experience. Its importance in cross-cultural research has grown significantly in recent years. X. Zhao *et al.* (2023), in their review of the past two decades, highlight the relevance of cultural variation in conceptual metaphor. While the cognitive basis of emotional metaphors is considered universal, their expression varies across cultures, making this area highly important for cognitive linguistics. In recent years, the concept of conceptual metaphor and its embodiment have once again become a major topic of research in cognitive linguistics. J. Pelkey (2023) provided a comprehensive review of how embodiment systematically shapes linguistic expressions across typologically diverse languages, arguing that bodily experience provides the grounding for abstract conceptualisation in ways that are both universal and culturally modulated. Building on this, P. Neumair *et al.* (2025) conducted a further study of how frames are semantically connected to the emotional experience that language conveys and concluded that cultural differences exist in how frames relate to emotional metaphor in language. This shows that the role of the body, culture, and language in emotions is not as simple as originally thought.

The cultural aspect of emotional metaphor has been researched from a number of theoretical stances. M. Ponsonnet (2022) proposed a model of emotional relativity, which demonstrated that cultural differences in emotional experience are not merely superficial but, on the contrary, point to fundamentally different ways of conceptualising emotions, which have a significant impact on emotional metaphor. Further, J. Zou *et al.* (2025) also demonstrated that cultural models have a significant impact on metaphor understanding across cultures, which leads to a clear conclusion that metaphor understanding is not merely a matter of linguistic understanding but also a product of cognitive frameworks. The above-mentioned research contributions highlight that cultural aspects need to be incorporated into any model of emotional metaphor.

Significant results have been obtained on the specific topic of heart metaphors. In his extended conceptual metaphor theory, Z. Kövecses (2020) systematised the evidence indicating that, despite the fact that heart metaphors of emotion are found to be widespread across languages of the world, there is a pattern of variation with respect to the elaborateness of heart metaphors of emotion. The importance of the heart as a metaphorical concept was also supported by the results of the study by N. Malik *et al.* (2022), who reviewed the methodological status quo of the field of corpus-based metaphor studies, with the authors of the paper highlighting the potential of large-scale linguistic data analysis for the identification of universal and culture-specific patterns of metaphor use with high precision. Research in this area on Turkic languages has prepared the ground for a unique yet less-developed focus of emotional metaphor research. For example, M. Baş (2023) examined the conceptual character of emotion term in Turkish, “heyecan”, and showed that the nature of unique cognitive frameworks on emotions in Turkish stand quite far from those detailed in Indo-European languages research so far; this result touches upon more general observations, suggesting that Turkic data should not be excluded from cross-linguistic considerations. Z. Derbisheva (2017) formulated a cognitive-conceptual approach to the analysis of Kyrgyz in particular and showed how cultural concepts are structured by means three layers: conceptual core, semantic planes, interpretational planes carrying culturally-embedded knowledge. This framework allows to use an appropriately methodological instrument for exploring the ways the Kyrgyz emotional metaphors encode nomadic and nature-embedded ontologies that lack an apparent English equivalent. Recent work by S. Almaghlouth & L. Alotaibi (2024) has also grounded the metaphor identification in methodological precision: the combination of the Metaphor Identification Procedure and quantitative lexical string analysis led to a significant improvement regarding systematicity, reliability in metaphor identification for large scale corpus studies – refinement that was applied within the analytical procedure employed for this research.

However, despite this growing body of research, a comparative analysis of verbal metaphors concerning heart-related emotions in Kyrgyz and English has not been conducted using both corpus linguistics and cognitive conceptual models. The present study aimed to fulfill this function by identifying universal and culturally specific patterns in both languages and describing how this is a function of each language’s worldview.

Materials and Methods

A mixed-methods approach was used in the study, which included corpus-based analyses and ethnographic observation. The data collection was conducted between 2022 and 2024. The primary sources of information included the following: the Manas-UdS Kyrgyz Corpus, a collection



of 1,019 texts in the Kyrgyz language comprising novels, novelettes, epics, minor epics, fairy tales, and media texts totalling 2 million words; the British National Corpus (BNC), a balanced collection of spoken and written English; modern Kyrgyz literature and periodical press, including newspapers such as *Kyrgyz Tuusu* and *Azattyk*, as well as online forums and social media posts, which provided insight into contemporary Kyrgyz language use; and folk songs, proverbs, and traditional narratives, which were consulted to account for the historical and cultural dimensions of emotional metaphor. N. Malik *et al.* (2022) demonstrated the increasing effectiveness of corpus tools in metaphor analysis, underlying their capacity to process large-scale linguistic data with high precision, which informed the methodological decisions of the present study.

The Metaphor Identification Procedure (MIP), proposed by the P. Group (2007), was modified according to the specific morphological characteristics of the Kyrgyz language and carried out in three steps: identifying the word as a lexical unit by checking the word for basic and contextual meanings; checking for metaphoricity by comparing contextual and basic meanings for metaphorical usage; and classifying the metaphor, as determined, according to source and target domains. It was showed that the using MIP in combination with quantitative string analysis of the lexicon greatly improves the accuracy and methodological precision of metaphor identification in large-scale corpus studies, which was done in the present research. Heart-related metaphors (жүрөк (jürök) “heart” in Kyrgyz and “heart” in English) were given extra attention because they are common in emotional language. The study looked at both simple lexical metaphors and more complicated

metaphorical phrases that used more than one element. L. Cameron’s (2003) discourse dynamics approach was applied in the analysis to examine how metaphors function in real communicative contexts, capturing both stable metaphorical patterns and their context-dependent variation. The analytical framework is additionally grounded in Z. Derbisheva’s (2017) cognitive-conceptual model for the analysis of Kyrgyz language concepts, which distinguishes the conceptual core, semantic layer, and interpretational layer, thereby encoding the cultural peculiarities embedded in the lexical structure of the language.

Results and Discussion

The analysis of heart-related verbal metaphors in the Kyrgyz and English corpora yielded a total of 847 metaphorical expressions: 423 in Kyrgyz and 424 in English. Heart-related metaphors constituted the largest category, accounting for 34% of Kyrgyz expressions and 28% of English expressions, which confirms the central role of the heart as a conceptual domain for emotional experience across both languages. The analysis shows that there are two broad dimensions: the universal metaphorical patterns that are rooted in the shared embodied experiences of humans, and the culture-specific elaborations that are shaped by the particular historical, environmental, and social conditions of the individual language cultures (Fig. 1). According to Z. Derbisheva (2017), concepts are organised internally based on field principles encompassing the conceptual core, semantic layer, interpretational layer, informational content, and figurative layer – a framework that proved particularly productive for the systematic analysis of Kyrgyz emotional metaphors presented below.

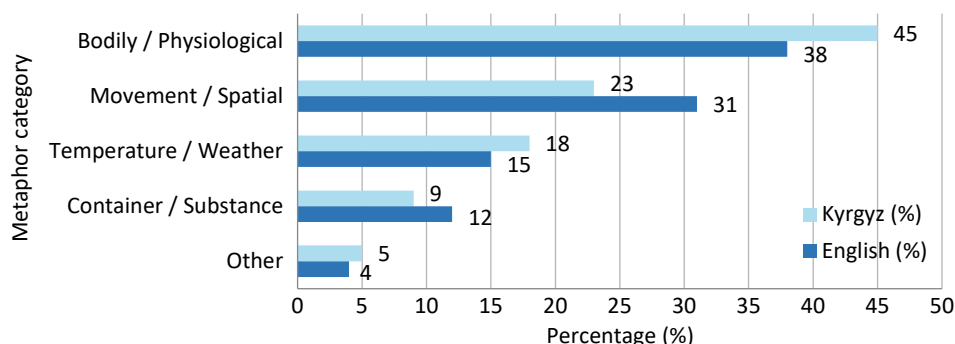


Figure 1. Distribution of metaphor types in Kyrgyz and English languages

Source: authors' own data

The metaphors were grouped into five main categories based on their conceptual origins: in the Kyrgyz language, there is a more marked preference for bodily/physiological metaphors (45% versus 38%), particularly those related to the heart, which indicates a more somatically based conceptualisation of emotions; In English, spatial and kinetic metaphors are used more frequently (31% vs. 23%), reflecting the cultural significance of directionality and progression in emotional experience; metaphors related to temperature and weather occur in both languages with comparable frequency (18% vs. 15%), indicating potentially

universal bodily experiences; in English, there is a slightly higher proportion of “capacity/substance” metaphors (12% vs. 9%), which may reflect different cultural orientations regarding the containment of emotions; in both languages, other types of metaphors are used minimally (5% vs. 4%), suggesting that emotional expression tends to cluster within specific conceptual domains. The study found that heart-related verbal metaphors of emotions were similar in both languages, which strongly supports the embodied cognition hypothesis and the universal foundations of conceptual metaphor theory. These patterns show that even

though Kyrgyz and English are very different in terms of culture and language, some basic ways of thinking about emotions through the heart seem to be universal.

Anger is heat/fire: Z. Kövecses (2020) identified this metaphorical pattern as one of the strongest cross-linguistic universals for how people think about emotions. Both languages use verbs that relate to heat and the heart to describe anger. This is based on the fact that when people are angry, their body temperature rises. In English, there are things like “heart burning with anger”, “heart ablaze with fury”, and “heart on fire”. In Kyrgyz, there are also strong heat images, like жүрөгү өрттөнүү (jürögü örttönüü) “lit. heart catching fire”, жүрөк күйүү (jürök küyüü) “lit. heart burning”, and жүрөгү жанып кетүү (jürögü janıp ketüü) “lit. heart burning up completely”. The cross-linguistic evidence presented here supports this claim.

Love is a physical force: another basic universal pattern is seeing love as a physical force acting on the heart. Z. Kövecses (2020) explains this pattern by nothing that love is something that “happens to” people rather than something they consciously choose. Verbs that suggest physical impact, penetration, or striking of the heart are used in both languages. English uses phrases like “heart struck by love”, “love piercing the heart”, “cupid’s arrow hitting the heart”, and “being hit by love”. Kyrgyz uses similar phrases like жүрөккө чок салуу (jürökkö chok saluu) “lit. to strike the heart with love”, жүрөк тартылуу (jürök tartıluu) “lit. heart being pulled”, and жүрөктү жаралоо (jüröktü jaraloo) “lit. wounding the heart with love”. This metaphorical pattern shows how love is something that happens to everyone and can happen suddenly and strongly. Because people think of the heart as the centre of their emotional lives, it is the natural target for this metaphorical force. The fact that Kyrgyz and English phrases are similar suggests that this way of thinking is based on basic physical experiences of impact and force that all people have, no matter what culture they are from.

Sadness is descent: the metaphor of sadness moving downward is a well-known way that people think about emotions. Both languages use metaphors for downward movement all the time. For example, in English, there are phrases like “heart sinking”, “heart dropping”, “heart falling”, and “feeling down-hearted”. In Kyrgyz, there are phrases like көңүл түшүү (köñül түşüü) “lit. spirit/heart falling”, көңүл чөгүү (köñül chögüü) “lit. spirit/heart sinking”, and other phrases that have to do with downward movement. This universal pattern is based on the connection between body language and emotions: when someone is sad, their body language usually shows it by slumping, lowering their head, and losing energy. When someone is happy, their body language usually shows it by standing up straight and moving around energetically. The heart, which is the metaphorical centre of emotional experience, naturally fits into this vertical schema. When the heart moves down, it means that the person is getting sadder. The fact that this pattern appears consistently in genetically unrelated languages like Kyrgyz and English provides strong evidence for the embodied foundations

of emotional metaphor. The fact that this pattern appears consistently in genetically unrelated languages like Kyrgyz and English provides strong evidence for the embodied foundations of emotional metaphor.

Fear is trembling and agitation: the use of metaphors of heart instability, trembling, and agitation to describe fear reflects how everyone reacts to fear stimuli in the same way. Both languages use metaphors of the heart moving and being unstable to talk about fear. English expressions include “heart trembling”, “heart quaking”, “heart fluttering”, “heart racing”, and “heart pounding” correspond to Kyrgyz expressions such as жүрөк калтыроо (jürök kaltıroo) “lit. heart trembling”, жүрөк титирөө (jürök titiroo) “lit. heart shivering”, жүрөк дүкүлдөө (jürök düküldöö) “lit. heart palpitating”, and жүрөк лак-лак этүү (jürök lak-lak etüü) “lit. heart doing lak-lak (rapid beating)”. Interpreting these bodily feelings as heart movement or agitation provides a natural basis for expressing fear experiences. Even though Kyrgyz and English are from different cultures and have different ways of speaking, they are very similar in this area. This shows how powerful embodied experience is in metaphorical thinking. These universal patterns provide strong support for several important theoretical claims in cognitive linguistics. First, they confirm the embodied cognition hypothesis, according to which abstract concepts are grounded in bodily experience. The cross-linguistic consistency of heart-related metaphors suggests that certain aspects of emotional conceptualisation are constrained by shared human physiology, regardless of cultural or linguistic differences.

Second, as Z. Kövecses (2020) argued, emotional metaphors display significant cultural variation at the level of linguistic expression, yet their underlying conceptual structures frequently reflect experiences that are universal and embodied. The heart stands out as a particularly important domain for emotional metaphorisation across cultures, which is consistent with its biological role in the body’s response to emotional stimuli. Finally, these universal patterns demonstrate that Conceptual Metaphor Theory provides a productive framework for identifying cross-linguistic regularities in metaphorical thinking. The consistent similarities in heart-related emotional metaphors across Kyrgyz and English – languages from very different cultural and linguistic backgrounds – constitute strong evidence that conceptual metaphors represent fundamental building blocks of human thought. Both languages demonstrate a rich inventory of heart metaphors, reflecting the heart’s status as a primary conceptual domain for emotional experience across cultures. However, a closer examination of linguistic usage reveals substantial cultural differences in how emotions are conceptualised, experienced, and expressed. The following analysis demonstrates that while both languages locate emotional experience in the heart, their metaphorical elaborations reflect fundamentally different cultural assumptions about the nature of emotions, their intensity, and the ways in which they are managed and overcome. Metaphors for fear and anxiety. Kyrgyz and English heart metaphors for



fear and anxiety differ considerably in their richness and internal differentiation (Tables 1, 2). Kyrgyz displays an

exceptionally rich and nuanced vocabulary for distinguishing different levels and types of fear experience.

Table 1. Kyrgyz metaphors expressing fear and anxiety

Kyrgyz metaphorical expression	Literal meaning	Figurative meaning
жүрөгү түшүү (jürögü tüşüü)	heart falling/sinking	being afraid or worried in general
жүрөгү калтыроо (jürögü kaltıroo)	heart trembling	being nervous or anxious
жүрөгү титирөө (jürögü titiroo)	heart shivering	experiencing intense fear or cold fear
жүрөгү дүкүлдөө (jürögü düküldöo)	heart palpitating	heart beating rapidly from fear
жүрөгү лакылдоо (jürögü lakıldoo)	heart rattling	heart beating rapidly from fear
жүрөгү дикилдөө (jürögü dikildöo)	heart drumming	heart beating rapidly from fear
жүрөгү атып кетүү (jürögü atıp ketüü)	heart jumping/leaping	being scared all of a sudden
жүрөгү оозуна тыгылуу (jürögü oozuna tıgıluu)	heart getting stuck in mouth	experiencing extreme fear
жүрөгү алкымына тыгылуу (jürögü alkımına tıgıluu)	heart getting stuck in throat	experiencing extreme fear
жүрөгү жарылуу (jürögü jarıluu)	heart exploding	being overwhelmed by fear or shock
жүрөгү шуу дей түшүү (jürögü şuu dey tüşüü)	heart falling with a whoosh	experiencing a sudden drop in mood/spirits
жүрөгүм кабынан чыгуу (jürögüm kabınan chıguu)	heart coming out of its shell/case	heart jumping out of chest from intense emotion

Source: authors' own data

Table 2. English metaphors expressing fear and anxiety

English metaphorical expression	Figurative meaning
have one's heart in one's mouth	to be very scared or worried
not have the heart	to not have the courage because you are scared or sorry
heart skipping a beat	sudden fear or excitement
heart pounding	very high levels of fear or anxiety
heart racing	being nervous or excited

Source: authors' own data

The Kyrgyz expressions show a high level of specificity and variety, suggesting that Kyrgyz culture operates with a more finely differentiated taxonomy of fear. These metaphors frequently draw on dramatic physical imagery – a heart exploding, becoming lodged in the throat, or escaping its protective casing, which renders fear more visceral and corporeal than the corresponding English expressions. The metaphorical pattern of the heart leaving its natural place during extreme fear, as in жүрөгү алкымына тыгылуу (jürögü alkımına tıgıluu) “lit. heart getting stuck in throat”, reflects the cultural assumption that emotional equilibrium corresponds to the heart occupying its proper anatomical position, and that fear disrupts this natural order. This pattern of spatial displacement appears to be culturally specific to Kyrgyz and illustrates how different

cultures interpret shared embodied experiences of fear, as noted by Z. Kövecses (2020) in his discussion of cultural variation in metaphorical elaboration.

The onomatopoeic dimension of жүрөгү шуу дей түшүү (jürögü şuu dey tüşüü) “lit. heart falling with a whoosh” demonstrates how Kyrgyz emotional metaphors integrate visual, auditory, and kinaesthetic experience into a single metaphorical expression. The greater multimodal richness of Kyrgyz fear metaphors suggests a more comprehensive and sensorially grounded conceptualisation of fear compared to the predominantly visual and kinaesthetic metaphors characteristic of English. Excitement and good feelings. The use of metaphors for positive emotions shows that the two languages think about emotional elevation and warmth in both the same and different ways (Tables 3, 4).

Table 3. Kyrgyz metaphors expressing excitement and good feelings

Kyrgyz metaphorical expression	Literal meaning	Figurative meaning
жүрөгү алып учуу (jürögü alıp uchuu)	heart taking flight	feeling happy or excited
жүрөк толкуу (jürök tolkuu)	heart being stirred/agitated	excitement or anticipation
жүрөгү ыргалуу (jürögü ırgaluu)	heart swinging/oscillating	emotional excitement
жүрөгү жылуу (jürögü jıluu)	heart warming	to develop warm feelings or to be touched
жүрөгү ийүү (jürögü iyüü)	heart melting	to develop warm feelings or to be touched
жүрөгү жибүү (jürögü jibüü)	heart softening	to develop warm feelings or to be touched
жүрөгү элжирөө (jürögü eljiröo)	heart becoming tender	to develop warm feelings or to be touched

Source: authors' own data

Table 4. English metaphors expressing excitement and good feelings

English metaphorical expression	Figurative meaning
heart soaring	feeling very happy
heart leaping	sudden joy or excitement
heart warming	growing fond of someone
heart melting	being very moved

Source: authors' own data

The universal metaphorical pattern “happiness is up” is realised through upward movement metaphors in both languages. Each language elaborates this pattern in culturally distinctive ways. The Kyrgyz expression жүрөгү алып учуу (jürögü alıp uchuu) “lit. heart taking flight” implies autonomous, purposeful movement of the heart, whereas the English expression “heart soaring” suggests a more passive upward trajectory. This difference may reflect divergent cultural orientations toward emotional agency and control. The Kyrgyz expression жүрөгү ыргалуу (jürögü ırgaluu) “lit. heart swinging/oscillating” introduces a rhythmic quality to emotional excitement that has no direct English equivalent. This metaphor conceptualises positive emotion as harmonious, self-contained

movement of the heart. It may reflect a cultural understanding of emotional wellbeing as balance and rhythm rather than the linear progression characteristic of Western emotional frameworks.

The lexical density of Kyrgyz warmth and tenderness expressions – жылуу (jıluu) “warming”, ийүү (iyüü) “melting”, жибүү (jibüü) “softening”, элжирөө (eljiröö) “becoming tender” – points to a highly developed semantic field in this emotional domain, which suggests that fine gradations of tenderness carry significant cultural weight in Kyrgyz and require precise linguistic differentiation. Concern and worry. The metaphorical conceptualisation of worry and unease reveals fundamentally different cultural models of anxiety in two languages (Tables 5, 6).

Table 5. Kyrgyz metaphors expressing concern and worry

Kyrgyz metaphorical expression	Literal meaning	Figurative meaning
жүрөк опкоолжуу (jürök opkoolzhuu)	heart getting tangled or confused	feeling bad
жүрөгүн өйүйт (jürögün öyüyit)	heart churning	worry or anxiety
жүрөк болкулдоо (jürök bolkuldoo)	heart bubbling	feeling uneasy or restless
жүрөк солкулдоо (jürök solkuldoo)	heart gurgling	feeling uneasy or restless
жүрөк оодарылуу (jürök oodarıluu)	heart turning over	worry or concern
жүрөк аңтарылуу (jürök aңtarıluu)	heart being disturbed	worry or concern

Source: authors' own data

Table 6. English metaphors expressing concern and worry

English metaphorical expression	Figurative meaning
heart heavy	feeling weighed down by worry
heart troubled	feeling anxious
heart aching	emotional pain or worry

Source: authors' own data

Kyrgyz emphasises worry as an internal movement and stirring, using intricate mechanical and liquid-related images. In contrast, English uses static images of weight and stirring. In the phrase жүрөк опкоолжуу (jürök opkoolzhuu) “lit. heart getting tangled”, worry is conceptualised as a state in which the heart’s regular functioning becomes knotted and blocked and must be untangled in order to regain equilibrium. In the liquid-related images жүрөк болкулдоо (jürök bolkuldoo) “lit. heart bubbling” and жүрөк солкулдоо (jürök solkuldoo) “lit. heart gurgling”, worry is conceptualised as an image of boiling liquid in motion within the body. M. Aksan (2006b) found

a similar pattern in Turkish and related it to the nomadic culture in which observation of nature, such as the motion of boiling water, is conceptualised as a source of understanding internal emotional states. In contrast, English “heart heavy” and “heart troubled” conceptualise worry as a static state of weight and stirring. These cultural variations imply that Kyrgyz people conceptualise emotions as a process that must be managed, while English people conceptualise them as a state that must be endured. Sadness and emotional pain. The metaphorical treatment of sadness and emotional pain reveals a particularly striking asymmetry between the two languages (Tables 7, 8).



Table 7. Kyrgyz metaphors expressing sadness and emotional pain

Kyrgyz metaphorical expression	Literal meaning	Figurative meaning
жүрөккө тийүү (jürökö tiyüü)	touching the heart	having an emotional effect
жүрөгүнө так калтыруу (jürögünö tak kaltruu)	leaving a mark on the heart	making someone feel bad for a long time
жүрөгү үшүү (jürögü üšüü)	heart getting cold	to get disappointed or lose faith
жүрөгүн өлтүрүү (jürögün öltürüü)	killing someone's heart	making someone feel fear caused by a continuous physical and moral suppression
жүрөгүнүн үшүн алуу (jürögünün üšün aluu)	taking the heart's sense	to scare someone by torturing him/her
жүрөгүн сүрүп алуу (jürögün sürüp aluu)	pulling/dragging the heart	making someone feel bad for a long time
жүрөгүн эзүү (jürögün ezüü)	crushing the heart	making someone sad
жүрөктү жаралоо (jürökü jaraloo)	wounding the heart	causing emotional pain
жүрөгү тилинүү (jürögü tilinüü)	heart being torn	feeling heartbroken
жүрөгү каноо (jürögü kanoo)	heart bleeding	feeling very sad
жүрөк сыздоо (jürök sizdoo)	heart aching	emotional pain

Source: authors' own data

Table 8. English metaphors expressing sadness and emotional pain

English metaphorical expression	Figurative meaning
break someone's heart	make somebody very sad or disappointed
heart aching	emotional pain
heartbreaking	overwhelming grief or distress
heart sinking	feeling of losing hope
eat one's heart out	feel bitter anguish, grief, worry, jealousy, or another strong negative emotion

Source: authors' own data

Kyrgyz draws on an exceptionally wide range of source domains to express emotional pain, including physical violence – өлтүрүү (öltürüü) “killing”, эзүү (ezüü) “crushing”, жаралоо (jaraloo) “wounding”; temperature change – үшүү (üşüü) “getting cold”; physical manipulation – сүрүп алуу (sürüp aluu) “pulling/dragging”, тилинүү (tilinüü) “being torn”; and medical conditions – каноо (kanoo) “bleeding”, сыздоо (sizdoo) “aching”. The progressive intensification from surface impact – жүрөккө тийүү (jürökö tiyüü) “touching the heart” – through lasting marking – так калтыруу (tak kaltruu) “leaving a mark” – to irreversible damage – өлтүрүү (öltürüü) “killing” – suggests that Kyrgyz culture maintains a more elaborated and graduated understanding of psychological harm than is reflected in

English emotional vocabulary. So, the metaphorical sense provides evidence that certain cultures place particular value on recognising the lasting nature of emotional injury and the importance of understanding emotional scars, as noted by Z. Kövecses (2020). The temperature metaphor жүрөгү үшүү (jürögü üšüü) “lit. heart getting cold” functions as a counterexample to the universal “anger is heat” pattern, indicates in Kyrgyz culture emotional withdrawal and abandonment, which are construed as the absence of fundamental warmth – a warmth that is culturally associated with life, social belonging, and emotional availability. Courage and emotional healing. The final emotional domain reveals divergent cultural models of bravery and emotional recovery (Tables 9, 10).

Table 9. Kyrgyz metaphors expressing courage and emotional healing

Kyrgyz metaphorical expression	Literal meaning	Figurative meaning
жүрөгү кабына келүү (jürögü kabına kelüü)	heart returning to its shell/case	to calm down and get composure back
жүрөгү тынчтануу (jürögü tınchtanu)	heart becoming peaceful	getting emotionally calm
жүрөгү толоо (jürögü toloo)	heart being full/complete	being brave and strong
жүрөгү майлуу (jürögü mayлуу)	heart being oily/rich	being brave and giving
жүрөгү эки (jürögü eki)	heart being doubled	being brave and kind

Source: authors' own data

Table 10. English metaphors expressing courage and emotional healing

English metaphorical expression	Figurative meaning
take heart	to get your courage back
have a heart	to be kind
have one's heart in the right place	to feel calm and relaxed
set one's heart at rest	to stop worrying, to stay calm

Source: authors' own data

Kyrgyz metaphors for courage and recovery draw on images of fullness, richness, and return to a natural state, reflecting cultural values of wholeness and abundance. The expression жүрөгү кабына келүү (jürögü kabına kelüü) “lit. heart returning to its shell/case” constructs emotional equilibrium as the heart occupying its proper protective position – a direct counterpart to the fear metaphors in which the heart is displaced from that position. The quality metaphors жүрөгү майлуу (jürögü mayлуу) “lit. heart being oily/rich” and жүрөгү толоо (jürögü toloo) “lit. heart being full/complete” conceptualise courage as abundance rather than absence, framing emotional strength as a positive resource. This contrasts with English expressions that emphasise volitional action – “take heart” – or correct orientation – “heart in the right place” – reflecting a more agency-centred cultural model of emotional resilience.

This detailed analysis demonstrates that both languages employ the heart as a primary metaphorical domain for emotion, but do so in ways that are deeply shaped by distinct cultural values. Kyrgyz displays greater lexical density and more elaborated metaphorical creativity. It can be noticed particularly in the domains of fear and emotional pain, which may indicate that these emotional experiences carry greater cultural salience and require finer linguistic differentiation in Kyrgyz culture. The predominance of dynamic, movement-based metaphors in Kyrgyz contrasts with the more static, state-based orientation of English emotional metaphors, reflecting a broader cultural difference in whether emotions are construed as processes or conditions, as discussed by Z. Kövecses (2020). However, it should be noted that despite these universal patterns, there are significant culture-specific patterns that reflect deeper cultural values and worldviews. Z. Kövecses has proposed that although the patterns of conceptual metaphors are universally grounded, the culture-specific patterns indicate that different cultures perceive and organise emotional experience in fundamentally different ways.

Kyrgyz-specific patterns. The metaphorical system of the Kyrgyz people has several unique patterns, which are rooted in their nomadic way of life and their close relationship with nature, as seen in the culture of Central Asia. The Kyrgyz people show a clear preference for using natural phenomena as source domains for heart-related emotional experience. This pattern is rooted in the long history of the nomadic culture’s relationship with nature. J. Gibbs (2005) has shown that the culture-environment engagement has a significant effect on the cognitive and linguistic systems of nomadic and pastoral cultures. M. Aksan (2006a) has noted that this pattern is seen in other Turkic languages as well, in which natural metaphors are used as source domains for emotional experience. The Kyrgyz language shows a distinct preference for natural phenomena as source domains for heart-related emotional metaphors. This preference originates in the long history of interaction between nomadic culture and the natural environment. T. Ingold (2021) demonstrated how environmental engagement shapes cognitive and linguistic systems in cultures with close ties to nature, while

J. Gibbs (2005) showed that this phenomenon extends to other Turkic-speaking communities, where natural metaphors similarly structure emotional expressions.

For instance, the expression жүрөгү өрттөнүү (jürögü örttönüü) “lit. heart catching fire” conveys passionate anger, drawing on the image of spontaneous combustion or wildfire – that is, anger that flares up suddenly and without warning. This metaphorical pattern, grounded in meteorological imagery, reflects what anthropologists have described as environmental embeddedness: the tendency of cultural groups living close to nature to develop conceptual systems that mirror environmental processes. The consistent linking of emotional states to weather and natural phenomena suggests that Kyrgyz culture perceives emotions as natural forces – ones that change rapidly, are triggered by external causes, and affect the individual as a whole.

Kyrgyz metaphors frequently conceptualise the heart as a permeable container that can be filled, emptied, or transformed by external forces. Unlike Western container metaphors, which tend to emphasise fixed boundaries, Kyrgyz container metaphors suggest a fluid and interactive relationship between inner emotional states and the outside world. Expressions such as сагынычка толуу (saginichka toлуу) “lit. fill with longing” and жүрөктөн арман төгүлүп (jüröktön arman tögölüp) “lit. sorrow is pouring out of the heart” illustrate this permeability. This pattern reflects collectivistic cultural values in which individual emotional experience is understood as inseparable from the social and natural environment. Container metaphors in Kyrgyz thus suggest that emotional wellbeing depends on proper circulation and exchange rather than on containment and protection – a conceptual orientation consistent with the nomadic valorisation of movement, flow, and adaptive response.

Many Kyrgyz expressions draw on metaphors of biological growth, decay, and organic processes. The phrase жүрөгү элжирөө (jürögü eljiröö) “lit. heart becoming tender” derives from the biological process of tissue softening, suggesting that certain emotional experiences render the heart more open and responsive – a change understood as natural rather than deliberate. The phrase жүрөгү каноо (jürögü kanoo) “lit. heart bleeding” draws on the imagery of physical injury and blood loss to express profound sadness, implying that emotional pain is as real and lasting as physical harm, and that recovery may be slow and may leave permanent traces. Z. Derbisheva (2017) observed a related tendency in Kyrgyz, noting that speakers apply body-part metaphors to the natural landscape – using төш (töş) “chest” for foothills, бел (bel) “waist” for mountain passes, and алкым (alkım) “throat” for the junctions between mountains and valleys – which points to a broader cognitive pattern of perceiving the natural world through the lens of the human body. This organic mode of conceptualisation stands in clear contrast to the mechanistic metaphors prevalent in English, which foreground control, efficiency, and predictable operation.

English specific metaphors. English heart metaphors reflect the cultural values and history of industrialised,



individualistic societies, in which technological advancement and an emphasis on personal control have shaped the metaphorical conceptualisation of emotion. English draws extensively on machine and technology analogies when referring to the heart. Expressions such as heart stopping and heart pumping conceptualise the heart as a mechanism operating according to fixed principles, foregrounding regularity, efficiency, and technical function rather than organic vitality. The expression heart pumping derives from the vocabulary of mechanical engineering and reflects the influence of technology and medicine on everyday emotional language. This mechanistic perspective implies that emotions can be understood through cause and effect, corrected through intervention, and managed as part of a structured process. E. Semino (2008) demonstrated that such technological framings of emotion are characteristic of cultures in which scientific rationality and systemic control are central values. The expression heart stopping frames extreme emotional impact as mechanical failure – a system breakdown requiring technical repair, which reflects a deeper cultural assumption that emotional health resembles proper mechanical function and that emotional difficulties, like technical faults, require expert diagnosis rather than natural recovery.

English also favours heart metaphors that encode the cultural values of progress and upward mobility. Expressions such as heart rising and heart falling organise emotional experience along a vertical spatial axis, mapping positive states onto upward movement and negative states onto downward movement. This spatial logic mirrors broader social and economic metaphors in English-speaking cultures, where moving up signifies success and falling down signifies failure. A. Barcelona (2003) argued that such cross-domain mappings reveal how personal and collective systems of value develop in parallel, with emotional and social hierarchies structured by the same underlying conceptual framework. Unlike Kyrgyz metaphors, which are organised around cycles and natural processes, English spatial metaphors imply that emotions have destinations and that emotional wellbeing consists in moving in the right direction rather than in maintaining balance.

The expressions steel one's heart and harden one's heart reflect the individualistic cultural value placed on self-reliance, emotional regulation, and personal responsibility. Both metaphors define emotional strength as the capacity to resist external influence – to set boundaries, maintain control, and act independently. Steel one's heart draws on metalworking imagery and implies that emotional resilience must be deliberately constructed through effort and practice, framing emotional vulnerability as a correctable weakness. Harden one's heart similarly suggests that emotional safety is achieved by intentionally reducing sensitivity, a framing that aligns with cultural preferences for independence and self-management over emotional openness and social interdependence.

These individualistic and mechanistic patterns contrast sharply with the fluid, environmentally embedded

metaphors characteristic of Kyrgyz. As F. Sharifian (2011) demonstrated, emotional expressions that appear structurally similar across languages may carry fundamentally different cultural meanings and behavioural expectations. A. Barcelona (2003) likewise emphasised that while universal metaphorical patterns arise from shared human experience, their cultural elaborations reflect distinct values, worldviews, and historical trajectories. The nomadic, nature-oriented patterns of Kyrgyz and the individualistic, technologically influenced patterns of English thus not only reflect but actively reinforce different cultural ways of being in the world – a distinction with direct implications for translation, cross-cultural communication, and intercultural psychological practice.

Analysis of frequency and distribution of verbal metaphors. Statistical analysis of the corpus data revealed clear patterns in the frequency and distribution of different metaphor types across the two languages. A. Stefanowitsch & S. Gries (2007) demonstrated that corpus-based quantitative methods provide reliable empirical support for claims about cultural differences in metaphorical conceptualisation, and the present findings are consistent with that methodological position. The corpora contained 847 metaphorical expressions in total: 423 in Kyrgyz and 424 in English. Heat metaphors for anger: heat-based heart metaphors for anger account for 31% of Kyrgyz heart expressions and 23% of English heart expressions. This eight-point difference indicates that Kyrgyz speakers are considerably more inclined to conceptualise heart-based anger through thermal imagery, a pattern that may be attributed to the traditional nomadic lifestyle in which the management of fire was of central practical and cultural importance. Kyrgyz expressions such as жүрөгү өрттөнүү (jürögü örttönüü) “lit. heart catching fire” draw on sudden, dramatic fire imagery, whereas English heat metaphors tend to emphasise gradual warming. This distinction suggests that the two cultures hold different assumptions about how anger develops and manifests.

Metaphors for love: love-related heart expressions account for 35% of English heart metaphors and 28% of Kyrgyz heart metaphors. The higher relative frequency of movement metaphors in English suggests that kinaesthetic and spatial conceptualisations of love carry greater cultural weight in English emotional language. English movement metaphors for love function according to two related cultural patterns: an achievement orientation, in which love is framed through progress metaphors such as “relationship going somewhere” and force metaphors such as “swept off feet”, reflecting the cultural alignment of romance with goal-directed achievement; and an individual agency orientation, in which expressions such as “pursuing someone” foreground personal control and deliberate choice in romantic relationships. Kyrgyz, by contrast, favours state-based expressions such as жүрөгү жылуу (jürögü jiluu) “lit. heartwarming”, which focus on internal transformation rather than directed movement, suggesting that Kyrgyz speakers conceptualise love as a natural process rather than a goal-oriented pursuit.

Heart metaphor frequency: cultural importance. Heart-based metaphors account for 34% of emotional expressions in Kyrgyz and 28% in English. The higher frequency in Kyrgyz can be attributed to two interrelated cultural factors. First, Kyrgyz emotional conceptualisation appears to be more centrally organised around the heart as a structuring principle, whereas English distributes emotional metaphorisation across a broader range of source domains; second, the greater cultural centrality of heart-based conceptualisation in Kyrgyz may reflect deeply held cultural values of emotional authenticity and interpersonal connectedness. Emotional domain hierarchies: the frequency data reveal that the two languages assign different priorities to emotional domains. In Kyrgyz, the domains are ordered as follows in terms of metaphorical elaboration: fear and anxiety, emotional pain, love, anger, and recovery. In English, the order is: love and romance, general emotions, fear, anger, and recovery. This contrast suggests that Kyrgyz culture places particular emphasis on the precise

differentiation of negative emotional states, while English-speaking culture invests greater linguistic elaboration in the expression of positive and romantic emotions.

The corpus frequency data provide empirical support for several theoretical claims. As Z. Kövecses (2020) argued, basic metaphorical mappings such as “anger is heat” and “love is journey” appear across many languages, yet their frequency and degree of elaboration vary considerably, suggesting that universals operate at the level of basic conceptual structure while cultural differences manifest in intensity and detail. The frequency differences in heart metaphors further demonstrate that even deeply embodied conceptualisations are subject to cultural filtering – a finding that supports the view that cultural factors can modulate patterns that might otherwise appear to be universal. These results confirm the value of quantitative corpus methods for providing rigorous empirical grounding for claims about cross-cultural metaphorical variation (Fig. 2).

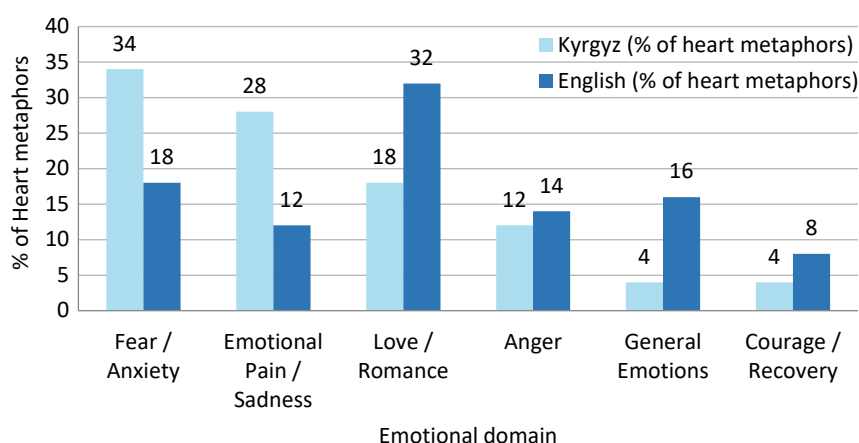


Figure 2. Cross-cultural frequency analysis

Source: authors' own data

The frequency analysis shows that even though basic metaphorical correspondences may be the same in all languages, their frequency, elaboration, and cultural importance vary a lot. The fact that Kyrgyz uses more heart metaphors for anger and heart metaphors in general, while English uses more movement metaphors for love, shows that different cultures organise their emotions in different ways. The above patterns show how cultural values, environment adaptations, and conceptual priorities may influence the way emotions are understood and expressed in language.

Conclusions

A study of verbal metaphors related to the heart in Kyrgyz and English shows how shared cognitive structures and specific cultural details shape emotional thinking. Both languages use the heart as a key metaphor for emotions, suggesting a common base for how humans understand feelings. At the same time, the analysis reveals substantial differences in the linguistic and cultural realisation of these metaphors. These findings support the idea that

conceptual metaphor theory's claims about universal patterns should also take into account cultural variations. Basic metaphorical patterns exist in many languages, but their frequency and details show deeper cultural values. Authors' recent research showed that cultural models deeply influence how metaphors are understood across languages. It is suggesting that metaphor comprehension involves not only linguistic knowledge but also culturally embedded cognitive frameworks between language and thought. Kyrgyz displays a more heart-centred, process-focused approach to emotions, particularly in describing internal emotional states and natural processes, while English uses more individualistic and control-focused metaphors, which emphasise personal action and a mechanical view of emotional experience.

Also, these different patterns suggest that metaphorical systems both reflect and strengthen the ways people in different cultures live their lives. Specifically, Kyrgyz metaphors show a humbly nomadic cultural background that is influenced by the environment. This is very different from English, which is influenced by technology and is



more individualistic. This means that emotional language is not only a way to express yourself, but also a way to pass on and strengthen cultural values. These cultural insights are important, but the results also help understand the link between language, cognition, and culture by showing that even though people may have similar physical experiences, the ways they think about and talk about them are very different in different cultures. Such differences shape not only how emotional states are expressed but also how people understand relationships, interpersonal responsibility, and the fundamental structure of emotional life. As cross-cultural contact intensifies, awareness of these differences becomes increasingly important for effective communication, translation, and psychological practice across cultural boundaries. Future research on this field will help to explore heart metaphors in other Turkic languages to form broader patterns across the

language family. Additionally, empirical studies investigating how metaphorical conceptualisations influence emotional processing and cross-cultural communication would provide important additions into the cognitive reality of these linguistic field. Comparative studies with non-related language families would further refine the boundary between universal and culture-specific aspects of emotional metaphorisation.

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Эмоцияларды маданий концептуалдаштыруу: кыргыз жана англис тилдериндеги жүрөк метафоралары

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Аннотация. Ар кандай тилдердеги эмоцияларды билдирген жүрөккө байланыштуу вербалдык метафораларды изилдөө заманбап когнитивдик лингвистиканын актуалдуу багыттарынын бири бойдон калууда. Бул өзгөчө ар түрдүү маданияттарды түшүнүү жана натыйжалуу маданият аралык коммуникацияны камсыз кылуу зарылдыгы менен байланыштуу. Бул изилдөөнүн максаты кыргыз жана англис тилдериндеги жүрөккө байланыштуу вербалдык метафораларды изилдөө жана талдоо болуп саналат. Методологиялык негиз катары 3. Дербишеванын когнитивдик-концептуалдык модели жана метафораларды аныктоо процедурасы колдонулду. Изилдөөдө Британ улуттук корпусу жана Manas-UdS кыргыз корпусу пайдаланылды. Изилдөөнүн жыйынтыктары эки тилде тең жүрөккө байланыштуу метафоралардын олуттуу саны бар экенин көрсөтүп, эмоцияларды концептуалдаштырууда жүрөктүн маанилүү ролун тастыктады. Кыргыз тилинде коркуу жана эмоционалдык ооруну чагылдырган метафоралар өзгөчө өнүккөнү аныкталды. Метафоралык система табиятка байланышкан образдар, өткөрүмдүү контейнерлер жана органикалык процесстер аркылуу көчмөн салттын күчтүү таасирин көрсөттү. Англис тилинде метафоралык моделдер механисттик жана индивидуалисттик мүнөзгө ээ болуп, көзөмөл жана чектөө метафораларын камтыйт. Ошондой эле айрым метафоралык шайкештиктер универсалдуу болгону менен, алардын өнүгүшү ар башка тилдерде олуттуу айырмаланары аныкталды. Метафоралык системалар маданий дүйнө таанымды гана чагылдырбастан, аны калыптандырышы көрсөтүлдү. Алынган жыйынтыктар лингвисттер, котормочулар жана маданият аралык коммуникация адистери тарабынан теориялык изилдөөлөрдө, котормо практикасында жана маданият аралык компетенттүүлүктү өнүктүрүү программаларын түзүүдө колдонулушу мүмкүн. Муну менен бул изилдөө когнитивдик лингвистика менен маданият аралык изилдөөлөрдүн өнүгүшүнө салым кошот.

Негизги сөздөр: жүрөккө байланыштуу вербалдык метафоралар; когнитивдик лингвистика; тил аралык салыштыруу; соматикалык метафора; концептуалдык метафора теориясы; көчмөн дүйнө тааным



Культурные концептуализации эмоций: метафоры сердца в кыргызском и английском языках

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Аннотация. Исследование вербальных метафор, связанных с сердцем и выражающих эмоции в различных языках, остается актуальным направлением современной когнитивной лингвистики. Это особенно важно в условиях необходимости понимания различных культур и эффективной межкультурной коммуникации. Целью данной работы являлось исследование и анализ вербальных метафор, связанных с сердцем, в кыргызском и английском языках. В качестве методологической основы были использованы когнитивно-концептуальная модель З. Дербишевой и процедура идентификации метафор. В исследовании применялись Британский национальный корпус и Кыргызский корпус Manas-UdS. В ходе исследования было выявлено значительное количество метафор, связанных с сердцем, в обоих языках, что свидетельствует о важной роли сердца в концептуализации эмоций. Установлено, что в кыргызском языке особенно развиты метафоры, связанные со страхом и эмоциональной болью. Метафорическая картина демонстрировала сильное влияние кочевой традиции через образы природы, проницаемых контейнеров и органических процессов. В английском языке метафорические модели характеризуются механистичностью и индивидуалистической направленностью, включая метафоры контроля и сдерживания. Также установлено, что, хотя некоторые метафорические соответствия являются универсальными, их развитие существенно различается в разных языках. Показано, что метафорические системы не только отражают культурную картину мира, но и формируют ее. Полученные результаты могут быть использованы лингвистами, переводчиками и специалистами в области межкультурной коммуникации в теоретических исследованиях, переводческой практике и разработке программ формирования межкультурной компетентности. Тем самым данное исследование вносит вклад в развитие когнитивной лингвистики и межкультурных исследований

Ключевые слова: вербальные метафоры, связанные с сердцем; когнитивная лингвистика; межъязыковое сопоставление; соматическая метафора; теория концептуальной метафоры; кочевая картина мира



Function words in Kyrgyz and German: Classification and contrastive analysis

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Abstract. The systematisation of function word classes remains a pressing issue in contrastive linguistics, as typologically divergent languages employ fundamentally different mechanisms for encoding grammatical relations. This study aimed to establish the types and hierarchy of cross-linguistic functional correspondences between four Kyrgyz function word classes – postpositions, auxiliary nouns, conjunctions, and particles and their structural equivalents in German, with a view to identifying the compensatory grammatical mechanisms each language employs when the resources of the other are structurally absent. The research drew on contrastive analysis, the parallel-text method, descriptive-analytical procedures, and componential analysis; the empirical basis consisted of grammatical descriptions of the two languages and parallel literary texts. The analysis established that German prepositions constitute the primary functional correspondence for Kyrgyz postpositions, yet this mapping is not one-to-one: a single postposition may be rendered by different prepositions depending on context, while certain grammatical meanings are expressed through adverbial or analytic constructions. It was further found that Kyrgyz auxiliary nouns, which display a three-part morphological structure (root plus possessive affix plus case affix), have no single part-of-speech equivalent in German; their spatial semantics are conveyed primarily by prepositions, and additionally by adverbs and complex prepositional phrases. The coordinating conjunction systems of the two languages showed a considerable degree of isomorphism, whereas the subordinating domain reveals a notable quantitative asymmetry: German commands a substantially richer inventory, and Kyrgyz compensates through non-finite verb forms and the conditional mood. Particles in both languages exhibited the least predictable cross-linguistic correspondences, a result attributable to their pragmatic and discourse-level nature. The findings will be of interest to researchers in contrastive linguistics and translation studies, as well as to teachers of Kyrgyz and German

Keywords: typological divergence; SOV word order; non-finite subordination; grammaticalisation; morphosyntactic asymmetry; parallel corpus analysis; cross-linguistic equivalence

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Introduction

Typologically distant languages develop strikingly different inventories of function words to organise the same grammatical work and understanding how those inventories relate to one another has practical consequences for translation pedagogy, bilingual lexicography, and second-language acquisition. This relevance is especially pronounced for language pairs in which structural asymmetry is maximal: an agglutinative Turkic language whose grammar relies on postpositions, auxiliary nouns, and non-finite subordination, set against an inflectional Germanic language that encodes comparable meanings through prepositions, a rich system of subordinating conjunctions, and morphological case government. Mapping the functional correspondences between such systems exposes both the universality and the particularity of grammatical devices, yet comprehensive comparisons covering all major classes of function words within a single study remain rare, particularly for Kyrgyz and German.

Research in contrastive and typological linguistics over the past several years has addressed various facets of this problem. M. Haspelmath (2023) argued that word-class universals are best captured through the notions of function indicators and semantic root classes rather than through language-particular labels such as “noun” or “verb”, thereby providing a principled framework for comparing word-class inventories across genetically unrelated languages. In a related vein, K. Boye (2023) reconceptualised the lexical-grammatical distinction as a conventionalisation of discursively secondary status, effectively redefining the boundary between content and function elements and highlighting that function words occupy a gradient rather than a fixed position on the grammaticality scale. M. Haspelmath (2023), in the *Oxford Handbook of Word Classes*, provided an updated cross-linguistic survey encompassing adpositions, particles, and other minor categories, confirming that the internal structure of function word classes varies sharply even among languages of the same family.

Turning to Turkic-specific research, L. Johanson (2021) offered the first comprehensive typological survey of the entire Turkic family in the *Cambridge Language Surveys* series, devoting separate chapters to postpositions, converbs, and function words and demonstrating that postpositional systems across Turkic languages exhibit both shared archaic patterns and considerable modern diversification. D. Kozuev *et al.* (2021) analysed the structural-semantic features of English and Kyrgyz complex sentences with adverbial clauses, finding that in Kyrgyz more than three-quarters of adverbial modifications precede the main clause, a pattern directly conditioned by the postpositional and non-finite character of the language’s subordination system.

Several studies have also explored specific categories of function words in recent contrastive work. B. Zhunussova *et al.* (2024) traced the diachronic path of the ancient Turkic functional word *birlan* through modern Turkic languages, showing that what began as a postpositional

particle grammaticalised into case affixes in some languages while remaining a free-standing function word in others, a finding that illustrates the fluid boundary between postpositions and affixes in Turkic grammar. S. de Knop & F. Gallez (2023) conducted a contrastive study of prepositions, postpositions, and morphosyntactic case-marking across Dutch, English, and German, demonstrating that even within the same typological class of satellite-framed Germanic languages, considerable variation exists in how spatial and directional meanings are encoded by prepositional and morphological means. A. Cermakova *et al.* (2024), in their volume on contrastive corpus linguistics, charted new methodological ground by combining translation and comparable corpora across typologically diverse European languages, including German, and argued that register variation interacts with cross-linguistic contrasts in ways that monolingual descriptions fail to capture. J. Washington *et al.* (2024) addressed a narrower but related problem in the annotation of pronominalised locatives in Turkic Universal Dependency treebanks, revealing that the morphological complexity of locative forms, which parallels the structure of auxiliary nouns, poses unresolved challenges for cross-linguistic annotation and comparison. Despite this growing body of work, no single study has yet undertaken a simultaneous contrastive analysis of all four Kyrgyz function word classes – postpositions, auxiliary nouns, conjunctions, and particles – and their German functional counterparts on the basis of parallel literary texts. The present study sought to address this gap by identifying the types and hierarchical structure of functional correspondences between Kyrgyz and German function words, as well as by examining the compensatory grammatical strategies each language uses when the corresponding structures are lacking in the other.

Literature Review

Parts of speech are traditionally identified through a composite principle combining three criteria: semantic (the categorial meaning of a word), morphological (the set of grammatical categories and inflectional possibilities), and syntactic (the ability to perform particular functions in the sentence). Under the semantic criterion, content words carry full nominative meaning, while function words lack independent nominative meaning. The morphological criterion proves largely neutral for distinguishing the two domains, since morphological markers are equally characteristic of lexemes within any word class regardless of their autosemantic or synsemantic status. The syntactic criterion, by contrast, offers a clear basis for the distinction: content words can occupy sentence-element slots, whereas function words perform structural roles of linking, specifying, and modifying. Even the joint application of all three criteria, however, fails to produce a uniform classification in either Kyrgyz or German linguistics, as the status of modal words, interjections, onomatopoeia, and the article remains

contested owing to the intermediate position of these units on the autosemantic-synsemantic continuum.

Two principal positions on parts-of-speech classification have developed within Kyrgyz linguistics. The first view assigns three classes to the function category – postpositions, conjunctions, and particles – while treating modal words as a separate group (Davletov & Kudaybergenov, 1980; Zakharova, 1987; Biyaliev, 2013). The second view of K. Diykanov (1955) expands the function category to include modal words as well. The present study follows the first position in excluding modal words from the function class, since lexemes such as “balkim” – “perhaps” and “alvette” – “certainly” express the speaker’s subjective evaluation rather than performing the structural role of linking words or clauses, bringing them closer to parenthetical expressions than to canonical function units. At the same time, the analysis incorporates a fourth function word class that neither position discusses systematically: auxiliary nouns (kyzmattyk atoochtoru). Recognised as an independent part of speech during the last quarter of the twentieth century, this category includes lexemes such as “üstü” – “top”, “asty” – “bottom”, “aldy” – “front”, and “arty” – “back”, which had previously been assigned to postpositions, adverbs, or auxiliary verbs. As observed in the grammatical literature on Kyrgyz, auxiliary nouns “constitute a special group of words that occupy a particular transitional stage between content words and postpositions” (Zakharova, 1987). Under the semantic criterion, they carry exclusively spatial meaning, distinguishing them from postpositions, which cover spatial, temporal, causal, and instrumental meanings. Under the morphological criterion, they operate within a three-part structure of root plus possessive affix plus case affix, unlike morphologically invariable postpositions. Under the syntactic criterion, they can combine with postpositions while dominating the word combination, a combinatorial property that postpositions do not share (Zakharova, 1987; Sydykov, 1990; Pazilova, 2025). The present study therefore analyses four Kyrgyz function word classes: postpositions, auxiliary nouns, conjunctions, and particles.

German part-of-speech classification is similarly non-uniform. One influential view by W. Jung (1996), O. Moskalskaja (2004) and O. Abdykaimova et al. (2020) distinguishes fourteen parts of speech organised into autosemantic and synsemantic groups, with the synsemantic category covering prepositions, conjunctions, copulas, particles, the article, and auxiliary verbs. A competing view by V. Admoni (1970) and B. Abramov (2004) reduces the inventory to twelve classes and relocates modal words to the autosemantic group. Both positions include the article among function words, yet a number of Germanists argue that the article is more accurately treated as an integral grammatical component of the noun, since it encodes gender, number, and case information that the noun form alone cannot reliably convey (Bergman & Gilkner, 1957; Glinz, 1961). For the purposes of the present study, the article is excluded from the comparison, since Kyrgyz lacks this category entirely, expressing definiteness through

word order, demonstrative pronouns, the numeral “bir” – “one”, and context. The German units admitted to the analysis are therefore prepositions, conjunctions, and particles – the three classes that constitute the functional core of the German synsemantic inventory and carry the greatest potential for cross-linguistic matching with Kyrgyz function words.

The contrastive study of Kyrgyz function words has a continuous, if uneven, scholarly history. A. Dzholdobekov (1969) was the first to examine German prepositions alongside their Kyrgyz analogues, establishing that postpositions constitute the closest Kyrgyz equivalent, yet do not cover the full semantic range of German prepositions; auxiliary nouns serve as additional functional correspondents, particularly for locative meanings, while further resources include case affixes, adverbs, and converb constructions. K. Umarov (1973) focused on subordinating conjunctions and found that German organises these into nine semantic groups against only four in Kyrgyz; the deficit is compensated through case-marked forms, participial and converb constructions, postpositions, auxiliary nouns, and the conditional mood. K. Sagynbaev (1989) replicated this comparison for French spatial prepositions and established auxiliary nouns as the primary Kyrgyz functional counterpart across both paradigmatic and syntagmatic levels. A. Bizhkenova (2017) broadened the scope to all synsemantic classes and introduced the criterion of self-sufficiency, arguing that particles and interjections in both languages lack the capacity to realise a nominative function independently and therefore occupy a peripheral position within the function word inventory. A. Abdykharov (2007) approached the same material from the perspective of linguistic nomination, demonstrating that postpositions and auxiliary nouns relate to extralinguistic reality in a manner comparable to full-meaning lexical items. A. Sarymsakova (2007) proposed a principled division of synsemantic units into nominative-synsemantic items, which maintain a referential link, and non-nominative-synsemantic items, which express only speaker attitude. Ch. Ryskulova (2008) examined Kyrgyz postpositions in comparison with English and showed that their meanings are distributed across prepositions, adverbs, comparative adverb forms, and prepositional phrases. Kyrgyz auxiliary nouns are classified into vertical-plane, horizontal-plane, and restricted-horizontal subgroups and confirmed that spatial prepositions of English constitute their primary functional correspondent across all three. Taken together, these studies establish a well-documented research tradition, yet each addresses only one or two function word classes and no study has to date examined all four classes of Kyrgyz function words within a unified comparison with German.

Materials and Methods

The study drew on three types of sources. The first consisted of grammatical descriptions of Kyrgyz and German that contain part-of-speech classifications and characterisations of function words. The second comprised



dissertation abstracts and monographs by Kyrgyz linguists devoted to the contrastive analysis of function words in Kyrgyz in comparison with German, English, and French. The third source type consisted of parallel literary texts in Kyrgyz and German, which served as the primary empirical base for the contrastive analysis proper. The principal parallel corpus is Ch. Aitmatov's (2016) novella *Dshamilja*. This text was selected for several reasons. The novella represents modern standard Kyrgyz literary prose and has been recognised as a canonical work of twentieth-century Kyrgyz literature. The German translation was made by a qualified literary translator and has gone through multiple editions, making it a reliable target-language counterpart. Crucially, the text is of sufficient length to reveal stable and recurring patterns of cross-linguistic correspondence rather than incidental solutions. Supplementary illustrative examples were drawn from grammatical descriptions of both languages when the parallel texts did not yield a sufficient number of instances for a given function word class. The research was carried out during the academic year 2023-2024.

Before the analysis could proceed, the scope of the category "function word" required explicit delimitation. In the present study, a unit was classified as a function word on the basis of three criteria applied jointly: the semantic criterion (absence of independent nominative meaning), the morphological criterion (limited paradigmatic flexibility compared with content words), and the syntactic criterion (inability to occupy a sentence-element slot as subject, predicate, object, or attribute, and instead performing structural linking, specifying, or modifying roles). This three-criterion composite principle was consistent with the descriptive practice adopted in both Kyrgyz linguistics and the German grammatical tradition, as documented in the sources. On this basis, four Kyrgyz function word classes were admitted to the analysis: postpositions, auxiliary nouns, conjunctions, and particles. Modal words were excluded, as they express the speaker's subjective evaluation rather than performing structural linking functions, placing them closer to parenthetical elements than to canonical function units. Interjections were likewise treated as a separate class reducible to neither content nor function words. On the German side, the units selected for comparison were prepositions, conjunctions, and particles. The German article was excluded from the comparison, since the category of definiteness that it encodes has no lexical function-word correlate in Kyrgyz, where definiteness is conveyed by word order, context, demonstrative pronouns, and the numeral "bir" – "one".

The study was situated within the framework of contrastive linguistics and employed four methods in combination. Contrastive analysis provided the overarching procedure for comparing grammatical units in the two languages to identify structural and functional similarities and differences. The parallel-text method enabled the extraction and systematic pairing of source-text units with their translation equivalents, yielding authentic cross-linguistic correspondences grounded in actual usage rather than

constructed examples. The descriptive-analytical method was applied to describe and systematise grammatical facts on the basis of available monolingual linguistic descriptions of Kyrgyz and German. Finally, componential analysis was used to decompose the meanings of individual function words into discrete semantic components in order to gauge the degree of functional equivalence between paired units.

The analytical procedure comprised four steps. First, all contexts containing Kyrgyz function words belonging to the four target classes were extracted from the parallel texts by continuous sampling, that is, by working through the full text sequentially without pre-selection, so as to capture the complete range of contexts in which each unit occurs. Second, the corresponding German passage was inspected and the German equivalent – whether a preposition, conjunction, particle, adverb, morphological form, or multiword construction – was recorded for each context. Third, the equivalents were classified by correspondence type according to a four-level scheme: part-of-speech correspondence (e.g., postposition rendered by a preposition); morphological correspondence (e.g., postposition rendered by a case form without an adposition); syntactic correspondence (e.g., postposition rendered by a comparative or cleft construction); and zero correspondence combined with pragmatic or contextual compensation (e.g., a function word whose meaning is absorbed into the overall discourse structure of the translation without any discrete formal equivalent). This last category was retained throughout the analysis as an analytically significant type, since its frequency reflects the degree of structural asymmetry between the two systems. Fourth, all results were consolidated in summary tables presenting the types of correspondence and their hierarchy for each function word class.

Equivalence was assessed across four levels simultaneously. At the morphological level, attention was paid to whether the German equivalent carries overt morphological marking comparable to the Kyrgyz form (e.g., case affixes vs. prepositional government). At the syntactic level, the structural position and combinatory potential of source and target units were compared. At the semantic level, componential analysis was used to establish whether the full meaning of the Kyrgyz unit was preserved, narrowed, or expanded in the German rendering. At the pragmatic level, cases were noted in which the functional role of the Kyrgyz unit – particularly for particles – was conveyed not by a discrete lexical item but by intonation, word order, or discourse context in the German text.

Results and Discussion

The contrastive analysis of the parallel texts, supplemented by evidence from grammatical descriptions of both languages, yields a structured inventory of cross-linguistic correspondences for each of the four Kyrgyz function word classes examined. The findings are presented below in the order of decreasing structural regularity, beginning with postpositions, where the correspondences are

most systematic, and concluding with particles, where they prove least predictable. Kyrgyz postpositions occupy a position after the content word they accompany, which stands before them in a specific case form. German prepositions, conversely, precede their complement and govern the case of the following noun or pronoun. This mirror-image positional distribution is a direct consequence of typological divergence: in agglutinative languages with SOV (Subject, Object, Verb) word order, function elements gravitate toward postposition, whereas in inflectional languages with SVO (Subject, Verb, Object) order they gravitate toward preposition (Dryer & Haspelmath, 2013). Four types of correspondence were identified in the parallel texts.

The most frequent pattern is the direct mapping of a Kyrgyz postposition onto a German preposition, and the three examples below illustrate both the regularity and the limits of this correspondence. In the sentence “Men seni zhönündö oilondum / Ich dachte über dich nach”, the postposition “zhönündö” (“about”) corresponds to the German preposition “über” governing the accusative. The choice of “über” here is conditioned by the semantics of mental direction, a meaning the German prepositional system encodes through case alternation: the same preposition “über” with the dative would yield a locative reading. Kyrgyz, lacking grammatical gender and case government by adpositions, encodes the entire relational meaning within the postposition itself, while German distributes it between the preposition and the case of its complement. In “Kalem menen zhazdym / Ich schrieb mit einem Bleistift”, the postposition “menen” (“with, by means of”) corresponds to “mit” governing the dative. Notably, “menen” covers a broader semantic range than “mit”, extending to comitative, instrumental, and coordinative readings; in coordinative contexts, “menen” may be rendered by the conjunction “und” rather than by a preposition at all, which illustrates the polysemy asymmetry typical of postpositional systems. In “Bul sen üchün / Das ist für dich”, the postposition “üchün” (“for”) maps onto “für” governing the accusative, a relatively stable benefactive correspondence that holds across a wide range of contexts without significant contextual variation.

The second type of correspondence arises when a single Kyrgyz postposition requires a two-element construction in German. In “Al üigö cheiin basyp bardy / Er ging bis zum Haus”, the postposition “cheiin” (“up to, until”) is rendered by the compound “bis zum” (bis + zu + dative). German requires “bis” alone when followed by proper nouns or adverbs (bis Berlin, bis morgen) but demands the addition of “zu” before common nouns with an article, effectively splitting what Kyrgyz encodes in a single morphological unit across two prepositions. This type reveals a structural density asymmetry: Kyrgyz postpositions tend to be semantically denser, while German prepositions are more grammatically specialised and combine to achieve equivalent scope. The third type occurs when no preposition is involved on the German side. In “Biz alarga karshy chyktyk / Wir traten ihnen entgegen”, the postposition

“karshy” (“against, toward”) is rendered by the directional adverb “entgegen” governing the dative. German “entgegen” belongs to the class of postpositional adverbs that can follow their complement (ihnen entgegen) or function as verbal prefixes (entgegenkommen). The case government is preserved – dative in both the postpositional phrase in Kyrgyz and the adverbial construction in German – but the grammatical class of the governing element differs, marking this as a morphosyntactic rather than a lexical correspondence.

The fourth type – where correspondence is achieved entirely through lexico-syntactic means – is illustrated by “Apam syyaktuu zhakshy adam zhok / Es gibt keinen so guten Menschen wie meine Mutter”. Here the postposition “syyaktuu” (“like, resembling”) is rendered by the comparative correlative construction “so...wie”. This type is particularly revealing because it demonstrates that the semantic content of a Kyrgyz postposition can be distributed across a syntactic frame in German rather than lexically concentrated in a single word. It also suggests that the boundary between the postpositional and the comparative construction is drawn at different points in the two languages. Taken together, these four types confirm that German prepositions are the primary but not exclusive functional correspondent of Kyrgyz postpositions. The correspondence is systematically asymmetric: a single postposition like “menen” may be rendered by “mit”, “durch”, or “und” depending on semantic context, and a single German preposition like “auf” may correspond to several different postpositions or auxiliary nouns in Kyrgyz. This many-to-many mapping reflects the difference in how semantic granularity is distributed across the adpositional lexicon in the two languages.

Auxiliary nouns represent the most typologically distinctive feature of the Kyrgyz function word system, since this category has no direct structural counterpart in German. Their defining characteristic is a three-part morphological structure combining a spatial root with a possessive affix and a case affix, which encodes not only the spatial relation but also the possessive dependency between the located object and the reference landmark. This morphological complexity has no equivalent in a German preposition, which is invariable and transfers the entire burden of case specification to the article and noun ending of its complement.

The dominant correspondence type, illustrated by three parallel examples, is the mapping of an auxiliary noun construction onto a simple German preposition. In “Bala üidün aldynda oinop zhatat / Das Kind spielt vor dem Haus”, the construction “üidün aldynda” is decomposable as “üi” (house) + genitive suffix + “ald” (front, spatial root) + possessive suffix -y + locative suffix -nda. German renders this entire three-part morphological package by the preposition “vor” governing the dative. The semantic content that Kyrgyz distributes across a possessive-inflectional chain – “at the front part belonging to the house” – is compressed in German into the spatial preposition “vor”, which simply encodes “in front of”. Similarly, “stoldun üstündö” (table + Gen. + üst + Poss. + Loc.) corresponds



to “auf dem Tisch”, where the vertical-contact relation expressed by the Kyrgyz root “üst” (“upper surface”) is carried by “auf”. The example “stoldun astynda / unter dem Tisch” follows the same structural logic, with the inferiority root “ast” (“lower part”) mapped onto the locative preposition “unter”. Across all three cases, the German preposition absorbs the spatial content of the auxiliary noun root while entirely suppressing the possessive layer of the Kyrgyz construction.

The second type occurs when the auxiliary noun construction corresponds to a German preposition combined with an adverb or adverbial particle. In “Bul toonun tegereginde chöp zhok / Rings um diesen Berg gibt es kein Gras” the construction “toonun tegereginde” (mountain + Gen. + “tegerek” + Poss. + Loc.), meaning “in the area surrounding the mountain”, requires both the preposition “um” and the adverb “rings” (“all around”) in German. The preposition “um” alone would express mere proximity or encirclement, while “rings um” specifies complete circumferential enclosure. This division suggests that the semantic precision encoded in the Kyrgyz root “tegerek” (“circumference, surrounding area”) is achievable in German only through lexical reinforcement of the preposition, pointing to a difference in the lexicalisation patterns of spatial meaning in the two languages.

The third type – auxiliary noun rendered by an adverb – illustrates the semantic flexibility of this category. In “Al ichinen küldü / Er lachte innerlich”, the auxiliary noun “ichi” (“inner part, interior”), used in a figurative rather than a strictly spatial sense, corresponds to the derived adverb “innerlich” (“inwardly, internally”). This is a notable instance of semantic bleaching: the auxiliary noun has extended from concrete spatial reference (“inside a container”) to abstract psychological reference (“within oneself”), and German handles this extended meaning through a morphologically derived manner adverb rather than through a spatial preposition. This type of figurative extension, where a spatial root acquires experiential or psychological readings, is well attested in other Turkic languages and reflects a broader cross-linguistic tendency to map spatial schemas onto abstract domains.

The fourth and structurally most complex type involves auxiliary noun constructions that include a postposition as well. In “Mekteptin zhanyna cheiin süilöshüp basyp kelishti / Sie kamen plaudernd bis in die Nähe der Schule”, the source construction “mekteptin zhanyna cheiin” combines the auxiliary noun “zhany” (“vicinity, proximity”, from “zhan” – “side”) with the postposition “cheiin” (“up to”). The German rendering “bis in die Nähe der Schule” involves three elements: the preposition “bis” (“up to”), the preposition “in”, and the noun “Nähe” (“nearness, vicinity”) in a genitive construction. Particularly striking here is the appearance of “Nähe” as the German equivalent of the auxiliary noun root “zhan”: in German, the spatial concept of proximity that Kyrgyz encodes as a grammaticalised function category must be expressed through a full lexical noun. This underscores that Kyrgyz has grammaticalised – to the level of a paradigmatically

organised function word class – notions that German lexicalises through ordinary nouns, demonstrating a fundamental difference in the grammaticalisation path taken by the two languages for spatial reference.

The comparison of the conjunction systems of the two languages reveals a pattern of partial isomorphism at the level of coordination and substantial divergence at the level of subordination. Among coordinating conjunctions, the correspondence is regular and semantically transparent: Kyrgyz “zhana” maps onto German “und” for copulative coordination, “birok” onto “aber” for adversative coordination, and “zhe” or “zhana zhe” onto “oder” for disjunctive coordination. The sentence “Kün chykty, birok aba suuk ele / Die Sonne ging auf, aber es war kalt” illustrates this directly, with the adversative conjunction occupying equivalent structural positions in both languages and encoding the same semantic relation of concessive contrast. The regularity of this correspondence reflects the fact that the basic types of coordinative relation – addition, contrast, and alternation – appear to be universally coded categories, making direct one-to-one mappings across typologically distant languages entirely expected at this level.

The domain of subordinating conjunctions presents a fundamentally different picture. German commands a richly differentiated system encoding causality (weil, da), conditionality (wenn, falls), concession (obwohl, obgleich), temporality (während, bevor, nachdem), purpose (damit), and result (sodass), each requiring a finite verb in a subordinate clause with verb-final word order. Kyrgyz, by contrast, has a considerably smaller inventory of subordinating conjunctions, a deficit that the language compensates through three distinct mechanisms. The first is direct conjunction correspondence: in “Zhaan zhaap zhatkandyktaan, biz üidö kaldyk, sebebi zhol ötö balchyk bolchu / Weil es regnete, blieben wir zu Hause, denn der Weg war sehr schlammig”, the Kyrgyz causal conjunction “sebebi” (“because, for”) maps directly onto German “denn”, which introduces a main-clause explanation rather than a finite subordinate clause. The second mechanism is the converbal-postpositional construction: in “Zhaan zhaaganyna bailanyshtuu biz üidö kaldyk / Weil es regnete, blieben wir zu Hause”, the Kyrgyz clause lacks any conjunction; instead, the non-finite verb form “zhaaganyna” (a nominalised gerund in the dative) combines with the postposition “bailanyshtuu” (“in connection with, because of”) to produce a causal adverbial equivalent. The entire mechanism operates without a finite subordinate verb and without a conjunction, yet achieves a propositional structure semantically equivalent to a German subordinate clause introduced by “weil”. The third mechanism exploits the conditional mood morphology of the verb: in “Zhaan zhaasa, biz üidö kalabyz / Wenn es regnet, bleiben wir zu Hause”, the conditional suffix -sa attached to the verb root zhaa- (“to rain”) produces the conditional reading without a conjunction, whereas German requires the subordinating conjunction “wenn” and a finite verb in the subordinate clause. These three mechanisms confirm that Kyrgyz

systematically recruits morphological and non-finite resources to perform work that German assigns to the lexical-syntactic domain of subordinating conjunctions.

The particles of both languages express modal, emotive, and pragmatic meanings without occupying a syntactic slot as a sentence element. German is particularly noted for its elaborate system of modal particles

(Abtönungspartikeln), which encode subtle attitudinal and discourse-structuring meanings that resist direct translation. Kyrgyz likewise possesses a ramified particle system covering emphatic, restrictive, interrogative, and emotive functions, and the contrastive analysis of parallel texts reveals three main correspondence types. The findings are consolidated in Table 1.

Table 1. Types of functional correspondence between Kyrgyz and German function word classes

Kyrgyz unit	Primary German correspondence	Additional correspondences
Postposition (menen, üchün, zhönündö, etc.)	Preposition (mit, für, über, etc.)	Adverb; complex prepositional constructions; comparative phrases
Auxiliary noun (aldy, arty, üstü, asty, ichi, zhany, etc.)	Preposition (vor, hinter, auf, unter, in, neben, etc.)	Adverb (innerlich, oben, unten); complex construction (in der Nähe, rings um)
Coordinating conjunction (zhana, birok, zhe)	Coordinating conjunction (und, aber, oder)	–
Subordinating conjunction (sebebi, antkeni, egerdi)	Subordinating conjunction (weil, da, wenn)	Non-finite Kyrgyz verb forms → finite constructions with a conjunction in German
Particle (da/de, gana, -chy/-chi, go, ele)	Particle / adverb (auch, nur, mal, doch, allein)	Syntactic constructions (cleft sentence, etc.)

Source: compiled by the authors

The first type involves a direct mapping between a Kyrgyz particle and a German particle or adverb. In “Men da keldim / Ich bin auch gekommen”, the Kyrgyz emphatic-additive particle “da” (“also, too”) corresponds to “auch”, which functions both as an adverb and as a pragmatic particle in German. The correspondence is semantically stable and contextually predictable, since both items mark additive inclusion without further pragmatic colouring. In “Al gana bilet / Nur er weiß das”, the restrictive particle “gana” (“only”) maps onto “nur”, another item that straddles the adverb-particle boundary in German. These direct correspondences belong to a closed set of semantically transparent focus particles that both languages tend to express through dedicated lexical items. The second type involves correspondences between Kyrgyz particles and the specifically German category of modal particles, which attenuate, reinforce, or modulate the illocutionary force of an utterance. In “Aitchy, kantip boldu? / Sag mal, wie ist das passiert?”, the hortative particle “-chy/-chi”, which softens commands and requests in Kyrgyz, corresponds to the modal particle “mal”, which performs an equivalent pragmatic softening function in German imperatives and requests. The parallel is functionally precise: both items transform a potentially brusque command into a polite or casual solicitation without altering the propositional content. In “Sen go keldingbi? / Du bist doch gekommen, oder?”, the Kyrgyz confirmative-interrogative particle “go”, which signals that the speaker expects or seeks confirmation of a proposition, corresponds to the combination of “doch” and the tag “oder?”. German requires two elements to achieve the pragmatic effect that Kyrgyz achieves with one: “doch” carries the speaker’s presupposition that the proposition is true, while “oder?” converts it into a question. This distribution across two elements reflects the greater grammatical specialisation of the German modal particle system.

The third type arises when the pragmatic effect of a Kyrgyz particle cannot be matched by any single lexical

item in German and requires a syntactic construction. In “Men ele aittym / Ich war es, der das gesagt hat” (alternatively: “Ich allein habe das gesagt”), the emphatic-contrastive particle “ele” places exclusive focus on the subject, implying that no one else performed the action. German can render this either through the adverb “allein” (“alone, exclusively”) or through a cleft sentence (Spaltsatz), which achieves the same exhaustive identification through syntactic structure rather than a particle. The availability of two German renderings for the same Kyrgyz particle reflects the fact that “ele” conflates functions that German distributes across different grammatical strategies depending on register and discourse context. More broadly, the particle comparison revealed the lowest degree of structural regularity across the four function word classes examined, a result directly attributable to the pragmatic and discourse-bound nature of particles: their meaning is heavily context-dependent, and cross-linguistic equivalence is achieved less through fixed lexical pairings than through dynamic, situation-specific interpretation.

This study has systematised the part-of-speech classifications currently adopted in Kyrgyz and German linguistics and has identified the function word classes that formed the object of comparison: in Kyrgyz – postpositions, auxiliary nouns, conjunctions, and particles; in German – prepositions, conjunctions, and particles. A synthesis of prior contrastive research demonstrated that the comparison of Kyrgyz function words with their Indo-European analogues had until now been carried out in piecemeal fashion, with each study covering only one or two word classes. The present work is the first to offer a comprehensive comparison of all four Kyrgyz function word classes with their German functional counterparts within a single study. The findings confirm and extend what earlier research had established for individual word classes. The primary functional correspondents of Kyrgyz postpositions in German are prepositions, yet this mapping is not one-to-one: a single postposition may map onto



several prepositions depending on semantic context, and some meanings require adverbs, complex constructions, or comparative phrases. This many-to-many mapping reflects the different principles of semantic granularity that govern adpositional lexicons in agglutinative and inflectional languages respectively. The positional asymmetry – postpositions following their complement, prepositions preceding it – is a direct typological consequence of the SOV versus SVO architectures of the two languages, and the case-government asymmetry, whereby Kyrgyz postpositions combine with up to four case forms while German prepositions govern two or three, further underscores the structural distance between the two systems.

Kyrgyz auxiliary nouns, with their distinctive three-part morphological structure of spatial root plus possessive affix plus case affix, have no single part-of-speech counterpart in German, where prepositions are morphologically invariable. Their spatial semantics is rendered by German prepositions as the principal functional correspondent, with adverbs and complex prepositional-nominal constructions serving as secondary and tertiary types. The convergence of this finding with earlier work on German, French, and English comparanda points to a cross-linguistic regularity: the spatial-relational content that Kyrgyz grammaticalises within the morphological paradigm of auxiliary nouns consistently maps onto the prepositional domain of Indo-European languages, regardless of the specific language involved. At the same time, the figurative and abstract uses of auxiliary nouns, where the spatial root acquires psychological or experiential meaning, tend to correspond to derived adverbs in German rather than to prepositions, signalling that the grammaticalisation paths of spatial meaning in the two languages diverge at the point where concrete spatial reference extends into abstract conceptual domains.

The conjunction comparison yields a pattern of partial isomorphism at the coordinating level and substantial divergence at the subordinating level. The basic coordinative relations – additive, adversative, and disjunctive – are encoded through dedicated lexical items in both languages, and the correspondences are stable and context-independent. Subordinating conjunctions, however, are distributed very differently across the two grammars: German maintains a richly differentiated finite-subordination system, while Kyrgyz achieves equivalent propositional relationships through non-finite verb forms, the conditional mood suffix, and postpositional constructions. This asymmetry fits squarely within the broader typological profile of Turkic languages, which characteristically grammaticalise inter-clausal relations through morphological means rather than through a lexical inventory of subordinating conjunctions.

Particles produced the least regular and least predictable cross-linguistic correspondences among the four classes examined. This outcome follows from their pragmatic and discourse-level nature: the meaning of a particle is constituted less by its lexical content than by its interaction with intonation, word order, and communicative context.

The German modal particle system, one of the most elaborated of its kind among European languages, performs attitudinal and discourse-structuring functions that Kyrgyz distributes across particles, intonation contours, and morphological mood markers. The partial overlaps identified – such as the correspondence between the hortative particle “-chy/-chi” and the softening particle “mal”, or between the confirmative particle “go” and the combination of “doch” with a tag question – indicate that the two systems share pragmatic functions while diverging in the grammatical resources through which those functions are realised. The domain of linguistic nomination can be productively extended to include function words endowed with nominative-synsemantic properties – postpositions, auxiliary nouns, and conjunctions – insofar as they relate to extralinguistic denotata in a manner structurally comparable to full-meaning lexical items. This perspective, developed within Kyrgyz linguistics in relation to earlier contrastive work on function words, gains additional support from the present findings: the spatial roots of auxiliary nouns, the semantic frames of postpositions, and the relational meanings of conjunctions all exhibit a degree of referential anchoring that places them on a continuum with content words rather than in strict opposition to them.

The findings on postpositions confirm and extend those of A. Dzholdobekov (1969), who was the first to establish that German prepositions constitute the primary functional correspondent of Kyrgyz postpositions, while auxiliary nouns, case affixes, and adverbs serve as secondary resources. The present study corroborates A. Dzholdobekov's principal finding – prepositions remain the dominant target-language equivalent – but refines it in two respects. First, the many-to-many character of the correspondence is demonstrated systematically through parallel-text data: a single Kyrgyz postposition such as “menen” may be rendered by “mit”, “durch”, or the conjunction “und” depending on the semantic context, a degree of contextual variability that the author's paradigmatic approach did not fully capture. Second, the present analysis explicitly identifies zero correspondence with pragmatic compensation as a fourth type, a category absent from A. Dzholdobekov's classification. Ch. Ryskulova (2008), working on Kyrgyz postpositions in comparison with English, similarly found that postpositional meanings are distributed across prepositions, adverbs, comparative forms, and prepositional phrases. The correspondence types she established for English closely parallel those identified here for German, suggesting that the structural asymmetry between Kyrgyz postpositions and Indo-European adpositions is not language-pair-specific but reflects a typological property of the contrast between agglutinative postpositional and inflectional prepositional systems. This typological interpretation aligns with M. Dryer & M. Haspelmath's (2013) cross-linguistic data demonstrating that adposition placement correlates non-randomly with basic word order across the world's languages, and with M. Haspelmath's (2023) argument that word-class correspondences across genetically unrelated languages

are best understood through functional rather than formal category labels.

The findings on auxiliary nouns converge with results obtained across three different Indo-European comparanda. A. Dzholdobekov (1969) first noted that German prepositions correspond to auxiliary nouns particularly in the expression of locative relations. K. Sagynbaev (1989), working with French spatial prepositions, reached the same conclusion: auxiliary nouns – specifically “aldy”, “arty”, and “zhany” – constitute the primary Kyrgyz functional counterpart of spatial prepositions at both paradigmatic and syntagmatic levels. The present study extends this cross-language convergence to a new dimension: while all four predecessors focused on the primary spatial uses of auxiliary nouns, the present analysis additionally documents their figurative and abstract uses, showing that when the spatial root acquires psychological or experiential meaning – as in “Al ichinen küldü / Er lachte innerlich” – the German correspondent shifts from a preposition to a derived adverb. This divergence in the grammaticalisation path of spatial meaning at the boundary between concrete and abstract reference is a finding not reported in any of the prior studies and represents a substantive contribution to the description of this word class. A. Bizhkenova (2017), who compared all synsemantic classes of German and Kyrgyz, did not distinguish auxiliary nouns as a separate category in her analysis; the present study’s treatment of auxiliary nouns as an independent class with its own correspondence hierarchy demonstrates the analytical gain of recognising this category explicitly, as argued in the grammatical literature by O. Zakharova (1987) and T. Pazilova (2025).

On the conjunction system, K. Umarov (1973) established that German organises subordinating conjunctions into nine semantic groups while Kyrgyz distinguishes only four, and that the deficit is compensated through case-marked forms, participial constructions, converbs, postpositions, and the conditional mood. The present study fully corroborates this finding at the level of types and extends it by providing parallel-text evidence for three specific compensation mechanisms – direct conjunction correspondence, converbal-postpositional construction, and conditional mood morphology – with concrete bilingual examples. K. Umarov’s finding that coordination shows greater cross-linguistic isomorphism than subordination is likewise confirmed: the basic coordinative conjunctions “zhana / und”, “birok / aber”, and “zhe / oder” form stable one-to-one correspondences, whereas subordinating conjunctions display a many-to-few asymmetry. D. Kozuev et al. (2021), analysing English and Kyrgyz complex sentences with adverbial clauses, found that more than three-quarters of adverbial modifications precede the main clause in Kyrgyz – a structural consequence of the very same non-finite subordination strategies the present study identifies as the compensatory mechanism for the missing conjunction inventory. The convergence between their syntactic observation and the present morphosyntactic analysis strengthens the case that non-finite

subordination is a deep typological feature of Kyrgyz grammar rather than a register-specific or author-specific phenomenon. L. Johanson (2021) provides the broader typological context: his survey of the Turkic family demonstrates that converbal subordination is an archaic, pan-Turkic property, and that the preference for non-finite clause-linking over finite subordinating conjunctions is characteristic of the family as a whole, further confirming that the asymmetry identified here is not peculiar to Kyrgyz but typologically expected.

The particle findings are the least directly comparable with prior work, since no previous study in the reviewed literature focused specifically on Kyrgyz particles in contrast with German. A. Bizhkenova (2017) noted that particles and interjections in both languages lack self-sufficiency in the realisation of a nominative function and occupy a peripheral position in the function word inventory, a characterisation consistent with the present finding that particles produce the least regular and least predictable cross-linguistic correspondences. A. Sarymsakova (2007) proposed dividing synsemantic units into nominative-synsemantic and non-nominative-synsemantic items, placing particles among the latter. The present analysis supports this division insofar as the non-referential, discourse-level character of particles is precisely what makes their cross-linguistic mapping unstable. However, the present study goes further by identifying three specific correspondence types – particle-to-particle/adverb, particle-to-modal-particle, and particle-to-syntactic-construction – and illustrating them with parallel-text data. The particular case of Kyrgyz “go” corresponding to the German combination of “doch” and a tag question (“oder?”) illustrates a distribution of pragmatic function across two grammatical elements on the German side, a kind of one-to-two mapping inverse to the structural compression typical of the postposition-preposition correspondence. K. Boye (2023), who reconceptualises function words as units conventionally occupying a discursively secondary position, provides a theoretical framework that helps account for this instability: if particle meaning is constituted largely at the discourse level rather than through fixed semantic content, then cross-linguistic equivalence will necessarily be contextually mediated rather than structurally fixed.

The question of whether function words possess nominative properties – raised by A. Abdykakhov (2007) and A. Sarymsakova (2007) within Kyrgyz linguistics – receives indirect support from the present parallel-text evidence. The spatial roots of auxiliary nouns, the relational frames of postpositions, and the propositional connectors represented by conjunctions all demonstrate degrees of referential anchoring that place them on a continuum with content words rather than in strict opposition to them. This is consistent with M. Haspelmath’s (2023) framework of semantic root classes, which allows cross-linguistic functional comparison to proceed through meaning rather than form, and with K. Boye’s (2023) view of the lexical-grammatical distinction as gradient rather than



discrete. B. Zhunussova *et al.* (2024), tracing the diachronic development of the Turkic particle “birlan” into case affixes in some modern Turkic languages while it remains a free-standing function word in others, illustrate empirically the fluidity of the boundary between postpositions and affixes – the same boundary that the three-part morphological structure of Kyrgyz auxiliary nouns inhabits synchronically. S. de Knop & F. Gallez (2023), demonstrating variation in how spatial and directional meanings are encoded prepositionally and morphologically even within the same sub-family of Germanic languages, confirm that the prepositional systems that serve as the primary German correspondents of Kyrgyz postpositions and auxiliary nouns are themselves non-uniform, which implies that the many-to-many mapping observed in the present study is partly driven by variation on the German side as well as by polysemy on the Kyrgyz side.

Conclusions

The present study set out to carry out the first comprehensive contrastive analysis of all four classes of Kyrgyz function words – postpositions, auxiliary nouns, conjunctions, and particles – against their German functional counterparts, using parallel literary texts as the empirical basis. The analysis has established four main findings. The functional correspondences between Kyrgyz postpositions and German prepositions are systematic but asymmetric. German prepositions constitute the primary correspondent type, yet the mapping is many-to-many at the semantic level and involves additional adverbial, morphological, and lexico-syntactic types of correspondence. This asymmetry is typologically motivated by the divergent word order and morphological profiles of the two languages.

Kyrgyz auxiliary nouns, a category specific to Turkic and without direct structural counterpart in German, correspond most consistently to German spatial prepositions across all spatial subgroups. Their three-part morphological structure – encoding the spatial relation, possessive dependency, and case simultaneously – is compressed into a single invariable preposition in German, which distributes the grammatical information across the article

and case ending of its complement. In figurative and abstract uses, the correspondence shifts from prepositions to derived adverbs, pointing to divergent lexicalisation paths for non-spatial meanings. The conjunction systems exhibit isomorphism at the level of coordination and sharp asymmetry at the level of subordination. Kyrgyz compensates for its smaller subordinating conjunction inventory through non-finite verb forms, conditional mood morphology, and postpositional constructions – a typologically expected pattern for a Turkic language with agglutinative morphology and SOV word order. Particles display the most context-dependent and least predictable correspondences, a result attributable to their pragmatic and discourse-level character. The partial overlaps identified between the two particle systems reflect shared communicative functions achieved through structurally different grammatical means.

These findings have direct applications for translation practice between Kyrgyz and German, bilingual and contrastive lexicography, the preparation of teaching materials for Kyrgyz learners of German and German learners of Kyrgyz, and the typological study of Turkic-Germanic grammatical relations. The methodological framework combining parallel-text analysis with multi-level equivalence assessment may serve as a basis for comparable investigations of other Turkic languages in contrastive pairing with European languages where systematic function word descriptions remain absent. Future research should extend the empirical basis to corpora of multiple genres and registers and apply quantitative frequency analysis to complement the qualitative classification of correspondence types established here.

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Conflict of Interest

The authors declare no conflict of interest.

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Кыргыз жана немис тилдериндеги кызматчы сөздөр: классификациясы жана салыштырма анализи

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Аннотация. Кызматчы сөздөрдүн класстарын системалаштыруу салыштырма тил илиминдеги актуалдуу маселелердин бири болуп саналат, анткени типологиялык жактан айырмаланган тилдер грамматикалык мамилелерди билдирүүдө принципалдуу түрдө ар башка механизмдерди колдонушат. Бул изилдөөнүн максаты кыргыз тилиндеги кызматчы сөздөрдүн төрт классынын – послелогдордун, жардамчы зат атоочтордун, байламталардын жана бөлүкчөлөрдүн немис тилиндеги структуралык эквиваленттери менен болгон тил аралык функционалдык дал келүүлөрүнүн түрлөрүн жана иерархиясын аныктоо, ошондой эле бир тилде экинчи тилге мүнөздүү болгон структуралык каражаттар жок болгон учурда колдонулган компенсациялык грамматикалык механизмдерди аныктоо болуп саналат. Изилдөөдө салыштырма талдоо, параллелдүү тексттер ыкмасы, сүрөттөмө-аналитикалык процедуралар жана компоненттик талдоо колдонулду. Эмпирикалык база катары эки тилдин грамматикалык сүрөттөмөлөрү жана параллелдүү көркөм тексттер кызмат кылды. Талдоонун жыйынтыгында немис тилиндеги предлогдор кыргыз тилиндеги послелогдордун негизги функционалдык эквиваленти болуп кызмат кылаары аныкталды. Бирок бул дал келүү бир маанилүү эмес: бир эле послелог контекстке жараша ар кандай предлогдор аркылуу берилиши мүмкүн, ал эми айрым грамматикалык маанилер наречие же аналитикалык конструкциялар аркылуу туюнтулат. Ошондой эле үч бөлүктөн турган морфологиялык түзүлүшкө ээ болгон кыргыз тилиндеги жардамчы зат атоочтордун (негиз + таандык мүчө + жөндөмө мүчө) немис тилинде сөз түркүмү боюнча түз эквиваленти жок экени аныкталды; алардын мейкиндиктик мааниси негизинен предлогдор, ошондой эле наречиелер жана татаал предлогдук конструкциялар аркылуу берилет. Эки тилдеги тең салалуу байламталар системасы кыйла даражада изоморфизмди көрсөтөт, ал эми багыныңкы байланыш каражаттары тармагында олуттуу сандык асимметрия байкалат: немис тили мындай каражаттардын кыйла бай топтомуна ээ, ал эми кыргыз тили бул айырмачылыкты этиштин нефиниттик формаларын жана шарттуу ыңгайды колдонуу аркылуу компенсациялайт. Эң аз болжолдонгон тил аралык дал келүүлөр бөлүкчөлөр тармагында байкалган, бул алардын прагматикалык жана дискурстук мүнөзү менен түшүндүрүлөт. Алынган жыйынтыктар салыштырма тил илими жана котормо таануу тармагындагы изилдөөчүлөр үчүн, ошондой эле кыргыз жана немис тилдеринин окутуучулары үчүн кызыктуу болот.

Негизги сөздөр: типологиялык айырмачылык; SOV сөз тартиби; нефиниттик багыныңкы байланыш; грамматикализация; морфосинтаксистик асимметрия; параллелдүү корпус талдоосу; тил аралык эквиваленттүүлүк

Служебные слова в кыргызском и немецком языках: классификация и сопоставительный анализ

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Аннотация. Систематизация классов служебных слов остается актуальной проблемой сопоставительного языкознания, поскольку типологически различающиеся языки используют принципиально разные механизмы выражения грамматических отношений. Целью данного исследования было установить типы и иерархию межъязыковых функциональных соответствий между четырьмя классами служебных слов кыргызского языка – послелогоми, вспомогательными существительными, союзами и частицами и их структурными эквивалентами в немецком языке, а также выявить компенсаторные грамматические механизмы, к которым прибегает каждый язык при отсутствии в другом соответствующих структурных средств. В исследовании использовались методы сопоставительного анализа, параллельных текстов, описательно-аналитические процедуры и компонентный анализ. Эмпирическую базу составили грамматические описания обоих языков и параллельные художественные тексты. Анализ показал, что немецкие предлоги выступают основным функциональным соответствием кыргызских послелогов, однако это соответствие не является однозначным: один и тот же послелог может передаваться различными предлогами в зависимости от контекста, тогда как некоторые грамматические значения выражаются посредством наречных или аналитических конструкций. Также было установлено, что кыргызские вспомогательные существительные, обладающие трехчастной морфологической структурой (основа + притяжательный аффикс + падежный аффикс), не имеют прямого частеречного эквивалента в немецком языке; их пространственная семантика передается преимущественно предлогами, а также наречиями и сложными предложно-именными конструкциями. Системы сочинительных союзов в обоих языках демонстрируют значительную степень изоморфизма, тогда как в области подчинительных средств наблюдается заметная количественная асимметрия: немецкий язык располагает значительно более богатым набором таких средств, тогда как кыргызский компенсирует это использованием нефинитных форм глагола и условного наклонения. Наименее предсказуемые межъязыковые соответствия были выявлены в сфере частиц, что объясняется их прагматической и дискурсивной природой. Полученные результаты представляют интерес для исследователей в области сопоставительной лингвистики и переводоведения, а также для преподавателей кыргызского и немецкого языков

Ключевые слова: типологическое расхождение; порядок слов SOV; нефинитное подчинение; грамматикализация; морфосинтаксическая асимметрия; анализ параллельного корпуса; межъязыковая эквивалентность





Semantic divergence of cognate verbal stems in Kyrgyz and Turkish languages

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Abstract. This article examined the semantic divergence of verbal stems in Kyrgyz and Turkish – two languages sharing Turkic roots but developing distinctly over time. The study aimed to identify specific shifts in verbal meanings and determine their underlying factors. The research material comprised four pairs of Turkic verbs: *gel/кел*, *çık/чык*, *al/ал*, and *düş/мыш*. Utilising a comparative analysis of contextual usage and derived meanings, the study identified three distinct types of semantic divergence. Semantic expansion: observed in the Turkish verbs *gel* and *çık*, which acquired abstract and idiomatic meanings (e.g., related to time or outcomes), whereas their Kyrgyz cognates retained narrower, spatially motivated semantics. Semantic specialisation: characterised Kyrgyz verbs, which stably preserved their original meanings. Lacking significant alterations, their semantic structure remained transparent and motivated for native speakers. Metaphorical divergence: occurred in the pairs *al/ал* and *düş/мыш*, where shared original meanings evolved in different directions. Turkish verbs focused on external events and pragmatic aspects, while Kyrgyz verbs acquired abstract meanings associated with internal cognitive states and social concepts. The research demonstrated that these shifts were driven by a combination of factors. The primary catalyst for Turkish semantic shifts was the 1923 language reform, which compelled native verbs to express complex abstract ideas. Conversely, the semantic conservatism of Kyrgyz verbs was sustained by development under Kyrgyz-Russian bilingualism. Divergent cultural environments and differing cognitive models of metaphorical thinking also played decisive roles. These findings contributed to the comparative study of Turkic languages, lexical semantics, and language pedagogy for preventing cross-linguistic interference. Ultimately, analysing Kyrgyz and Turkish verbal stems enhanced the understanding of diachronic semantic evolution, offering deeper insights into the shared history and cultural trajectories of their speakers

Keywords: comparative linguistics; lexical semantics; cognate verbs; metaphorical transfer; semantic narrowing; comparative Turkology; polysemy

Introduction

In practically all Turkic languages, the verbal system acts as a stable and immutable component of the language, preserving pieces of the Common Turkic heritage over many hundreds of years. The similarity and proximity of a large number of verbal stems in related languages suggest that they are close in meaning. However, in reality, the situation is even more complex: verbs that sound and are written similarly are not always identical in meaning. Over time, as a result of historical changes and the geographic areas inhabited by specific peoples, related languages found their own paths of development. This was reflected primarily in the semantics of core vocabulary, including verbs. Consequently, such cognate verbs, which share a single proto-language root, can differ from each

other in modern Turkic languages both in meaning and in frequency of use. In science, the process of changes in word meanings due to historical transformation is called semantic divergence. For example: in the Proto-Turkic language, the word *öt* had the meaning “to pass by, to pass through”; in the Kyrgyz language, it has retained this meaning and is translated the same way, whereas in the Turkish language, this verb is already translated as “to sing (of a bird), to sound” (Starostin *et al.*, 2003).

Recent scholarship confirms that the external lexical similarity of Turkic languages frequently conceals deep differences in historical-semantic development. A. Tabaldieva (2022) demonstrated, on the basis of Yenisei runic texts, that modern Kyrgyz verbs preserve the

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morphosemantic structure inherited from the proto-language, which accounts for their conservatism relative to Turkish. J.N. Washington & F.M. Tyers (2019) showed that Kyrgyz and Turkish non-finite verb forms constitute fundamentally different syntactic classes, which leads to divergence in functional load even when the root is shared. N. Doğan (2022) established that transitivity in Turkish is a gradient phenomenon: the same verb can be proto-transitive or low-transitive depending on context, opening additional niches for semantic expansion. F. Alijonova (2025), reviewing semantic analysis in Turkic and other languages, confirmed that polysemy and context-dependent meaning distribution represent the primary challenge in comparative lexicology of agglutinative languages. L. Johanson (2021) has recently published an authoritative study on the Turkic language family in which it is assigned an important role in linguistic divergence across the Turkic languages. S.A.K. Buhari (2024) synthesised current approaches to semantic change in historical linguistics and stated that changes in semantics should be approached as part of the interaction of cognitive, social, and contact-induced factors rather than only through one of these factors, thus representing a true multi-factor approach to the issue. A complementary line of evidence comes from research on the grammatical behaviour of cognate verbs rather than their lexical meaning alone. J.N. Washington & F.M. Tyers (2019) showed, on the basis of six Turkic languages including Kyrgyz and Turkish, that non-finite forms built on the same verbal roots do not occupy identical syntactic categories across languages; what looks like a single converb or participle category in traditional Turcology in fact splits into distinct classes of verbal noun, verbal adjective, verbal adverb, and infinitive, with the boundaries drawn differently from one Turkic language to the next. This finding is important for the present study because it indicates that grammatical divergence in cognate verbs are likely to be connected: a verb that has been pulled toward a new syntactic function in one language is also a plausible candidate for acquiring new, function-related meanings, since syntactic recategorisation typically creates the structural opportunity for semantic reanalysis to follow. A related point emerges from work on transitivity: the flexibility documented by N. Doğan (2022) supplies exactly the kind of structural slack that a verb needs in order to be reused, over time, for additional and increasingly abstract senses, since each new construction in which the verb participated can become the seed of a new figurative meaning. Taken together with typological observation that Turkic languages in general are prone to extensive polysemy in their core verbal vocabulary, these findings support the expectation that cognate verb pairs separated for roughly a century, such as those examined here, should show measurable differences not only in dictionary meaning but in the syntactic company the verb is allowed to keep.

The Turkish language underwent a major language reform in the early 20th century, carried out by the Turkish Language Society (Türk Dili Kurumu). As a result of purifying the language from Arabic-Persian and European

loanwords, native Turkish vocabulary took over the expression of complex abstract concepts and acquired a steady tendency toward expanding the semantic potential of certain verbs. The Kyrgyz language, which developed under conditions of Russian-Kyrgyz bilingualism, retained a narrower and more concrete semantics of verbal roots. This contrast is documented in the Etymological Dictionary of Altaic Languages (Starostin *et al.*, 2003) and the Old Turkic Dictionary (Tenishev *et al.*, 1969). Despite these developments, the semantic divergence of verbal stems specifically in the Kyrgyz-Turkish language pair has not been systematically examined in prior research. Therefore, the aim of the present study was to identify the main types of semantic divergence in cognate verbal stems of Common Turkic origin and to determine the factors contributing to their development.

Materials and Methods

The research material comprised commonly used verbs of Kyrgyz and Turkish that share a Common Turkic origin and actively function in contemporary language practice. Verb pairs were selected according to three criteria: (1) attestation in the proto-Turkic etymological sources; (2) high frequency in both languages as documented in the reference dictionaries listed below; and (3) structural comparability, i.e., the existence of a direct formal cognate in both languages. No frequency corpora were consulted at this stage; selection relied on cross-referencing multiple lexicographic sources to confirm active modern usage. Four pairs were identified as meeting all criteria: *gel/кел*, *чык/чык*, *ал/ал*, and *düş/мыш*.

The primary lexicographic sources included the Etymological Dictionary of Altaic Languages (Starostin *et al.*, 2003), the Old Turkic Dictionary (Tenishev *et al.*, 1969), and the Kyrgyz-Russian Dictionary (Yudakhin, 1985). Additional grammatical and comparative references included Grammar of the Modern Turkish Language (Kononov, 1956), Turkish: A Comprehensive Grammar (Göksel & Kerslake, 2005), and Introduction to the Study of Turkic Languages (Baskakov, 1969). Historical depth was additionally provided by M. Tyulemissov's (2005) study of Mahmud al-Kashgari's *Dīwān Lughāt al-Turk*, the earliest comprehensive dictionary of the Turkic languages, which supplied additional attestations for several of the verbal roots examined. These sources ensured normative description and comparability of Kyrgyz and Turkish material.

The core (primary) meaning of each verb was determined by identifying the meaning listed first in the etymological sources and corroborated by the explanatory dictionaries of both languages. Derived and figurative meanings were identified from the same dictionaries and cross-verified across at least two independent sources before inclusion. Contextual data were drawn from lexicographic example sentences contained in the dictionaries used, supplemented by stable collocations and phraseological units documented in the grammatical descriptions of A.N. Kononov (1956), J. Kornfilt (1997), and A. Göksel & C. Kerslake (2005). The



methodological basis was comparative-contrastive analysis, which involved: (1) identifying the core meaning of each verb; (2) establishing derived and figurative meanings; (3) comparing semantic structures across the two languages; and (4) classifying the type of semantic divergence. Contextual analysis was applied additionally to establish verb usage in natural speech. As E.C. Traugott & R.B. Dasher (2008) argued, the context of use plays a decisive role in the formation of new meanings. The present study did not aim at reconstructing proto-language

meanings or conducting a historical-etymological analysis; the focus was on a synchronic comparison of verb meanings in contemporary Kyrgyz and Turkish.

Results

Table 1 presents two illustrative examples from the etymological sources that motivated the study and demonstrate the general pattern of semantic divergence in Common Turkic cognates before the four focal pairs are examined in detail.

Table 1. Semantic divergence in selected Common Turkic cognate verbs

Proto-Turkic root + meaning	Verb (Turkish + Kyrgyz)	Turkish (semantic derivation)	Kyrgyz (meaning preservation)
<i>tut</i> – to hold, to catch	<i>tutmak + mymyy</i>	to hold, to catch; to hire, to rent, to keep/observe	to hold, to catch
<i>çök</i> – to sink, to kneel, to plunge into water	<i>çökmek + чөзүү</i>	to collapse, to crash; to sink in (of eyes); to settle (of a building)	to sink, to kneel, to plunge into water

Source: compiled by the author

As Table 1 shows, Turkish verbs acquired new meanings over time while Kyrgyz verbs remained largely unchanged. The following subsections present detailed analysis of the four focal verb pairs.

The verb pair *gel/кел* (“to come”). The verbal stems *gel* (Turkish) and *кел* (Kyrgyz) belong to the primary verbs of motion and go back to a Common Turkic root meaning directional movement toward the speaker or a reference point. In both languages this meaning is preserved as the semantic core. In Turkish, *gelmek* shows a high degree of semantic expansion. Beyond the basic meaning of movement, it is widely used to denote the onset of time, the occurrence of events, and the emergence of states, and it appears in numerous stable constructions and idiomatic expressions: *zamanı geldi* – “the time has come”; *aklına geldi* – “it came to mind”; *bu bana iyi geldi* – “this was good for me”. J. Kornfilt (1997) attributed this expansion to “the general tendency of Turkish toward the functional concentration of meanings in basic verbs”. In Kyrgyz, *кел* also permits figurative uses, but their range is narrower. Abstract and idiomatic expressions occur much less frequently than in Turkish: *айтканың келсин* – “may your wishes come true”; *аялдар боорукер келет* – “women tend to be kind-hearted”. The pair *gel/кел* thus exhibits semantic divergence along the line of abstraction: Turkish demonstrates active meaning expansion and metaphorisation, while Kyrgyz retains a more concrete, object-oriented structure.

The verb pair *çık/чык* (“to go out, to rise”). The original meaning of *çık/чык* is movement outward or upward. In their spatial meaning these verbs coincide across both languages. However, subsequent semantic development reveals major differences. In Turkish, *çıkma* is one of the most polyfunctional verbs. It is used to denote appearance, publication, an increase, the result of an action, and it features in a large number of stable combinations. As L. Johanson & É.Á. Csátó (1998) noted, such polyfunctionality is characteristic of Turkish, where “a limited number of verbs are combined with a wide spectrum of semantic

functions”: *dışarı çıkmak* – “to go outside”; *yarına çıkmak* – “to live until tomorrow”; *karpuz kabak çıktı* – “the watermelon turned out to be unripe”. In Kyrgyz, *чык* is also enriched with figurative meanings, but these retain a connection with spatial semantics: *үйдөн чыкты* – “left the house”; *жолдон чыкты* – “lost one’s way” (Yudakhin, 1985). Abstract uses occur less frequently and are more semantically transparent. The pair demonstrates divergence between semantic expansion (Turkish) and semantic specialisation (Kyrgyz).

The verb pair *al/ал* (“to take”). The verbal pair *almak/ал* belongs to the most archaic and widespread Common Turkic roots. In their original meaning these verbs coincide across both languages. In Turkish, *almak* is distinguished by high frequency and breadth of usage: besides “to take”, it is actively used to mean “to buy, to accept, to receive”, and it participates in numerous analytical constructions: *elma almak* – “to take / buy an apple”; *Ahmet komşu kızını aldı* – “Ahmed took the neighbour’s daughter as a wife” (Kononov, 1956). Turkish thus develops functional-pragmatic meanings. In Kyrgyz, *ал* retains the basic meaning of taking but develops additional meanings such as “to win, to buy, to cut (hair/nails), to capture”: *шаарды алды* – “captured the city”; *тырмагын алды* – “cut one’s nails”. This suggests a metaphorical expansion of “to take” in the direction of social or competitive superiority – a different trajectory from the Turkish functional-pragmatic path. The pair thus exemplifies metaphorical divergence.

The verb pair *düş/мүш* (“to fall”). In both languages *düş/мүш* originally signifies downward movement or falling. In Turkish, *düşmek* is highly metaphorised toward eventfulness and unintentional change of state: *fiyat düştü* – “prices dropped”; *başına bir şey düştü* – “something happened to him”. In Kyrgyz, *мүш* along with its spatial meaning is actively used in the cognitive domain, denoting the process of understanding or consciousness: *эсине мүштү* – “he remembered (lit. fell into his memory)”. N.A. Baskakov (1969) noted that such meanings reflect “features of semantic derivation in Turkic languages

oriented toward the internal state of a person". The pair thus exhibits metaphorical divergence along distinct conceptual lines: Turkish is oriented toward external eventfulness; Kyrgyz, toward internal cognitive states. An additional illustrative case that reinforces the pattern is the pair *bakmak/bazy* ("to look / to look after"). In Turkish, *bakmak* covers both "to look" and "to look after, to care for, to feed", whereas the Kyrgyz *bazy* has preserved primarily "to look after, to care for, to feed" as its core meaning. This indicates that the Kyrgyz root is semantically closer to the Old Turkic source, while Turkish developed a broader semantic range incorporating both a perceptual and a caretaking domain. This case further illustrates the pattern of semantic specialisation in Kyrgyz versus semantic expansion in Turkish.

The analysis of the four verb pairs made it possible to identify three types of semantic divergence: (1) Semantic expansion: the verb retains its original meaning while acquiring a wide range of abstract and figurative meanings. This type is characteristic of Turkish, where basic verbs actively participate in analytical constructions (attested in *gel/кел, çık/чык*). (2) Semantic specialisation: the verb retains a relatively narrow set of meanings. This type predominates in Kyrgyz, where the semantic structure of verbs remains more motivated and transparent. (3) Metaphorical divergence: similar verbal stems develop in different conceptual directions. The pairs *al/ал* and *düş/мүш* show that a shared proto-meaning can give rise to qualitatively different models of abstraction in each language.

Table 2. Types of semantic divergence of cognate verbal pairs

Pair	Kyrgyz semantics	Turkish semantics	Type of divergence	Direction
<i>gel/кел</i>	concrete movement	movement + events, states, idioms	Semantic expansion	Tur. > Kyr.
<i>çık/чык</i>	movement outward / upward	exit + appearance, publication, result	Expansion + specialisation	Tur. > Kyr.
<i>al/ал</i>	take + win, capture	take + buy, accept, receive	Metaphorical divergence	different directions
<i>düş/мүш</i>	fall + understand (cognitive)	fall + event occurrence, change of state	Metaphorical divergence	different directions

Source: compiled by the author

Discussion

The present study found that Turkish verbs of Common Turkic origin consistently demonstrate semantic expansion and metaphorical abstraction, while their Kyrgyz cognates preserve narrower, denotatively motivated semantics. This finding is consistent with L. Johanson & É.Á. Csató's (1998) observation that "changes in meanings in Turkic languages are often associated with the redistribution of functions between basic verbs". However, L. Johanson & É.Á. Csató did not systematically examine the Kyrgyz-Turkish contrast; the present study provides empirical evidence for this specific language pair, specifying the direction and type of divergence for each verb.

The finding that Turkish verbs absorb abstract and pragmatic meanings is consistent with J. Kornfilt's (1997) demonstration that the Turkish verb exerts exceptional morphosyntactic power: through agreement mechanisms, verbs dictate case forms in dependent constructions, which enables them to absorb extensive semantic domains. This structural feature was not previously linked in the literature to the specific divergence patterns documented here. Further support for this is gained through J. Kornfilt's (2003) study on case assignment in Turkish nominalised subordinate clauses, in which she demonstrates that similar morphosyntactic operations enable the verb to assign case not only in finite clauses but also in nominalised subordinate clauses, thus increasing the number of contexts where the meaning of the verb can be reanalysed. By contrast, N.A. Baskakov's (1969) classification of Kyrgyz as belonging to the Kyrgyz-Kipchak group, which preserved an archaic stratum of lexis, explains the semantic conservatism observed in the present data. The difference between the two languages is thus not merely lexical but reflects distinct typological priorities.

The present study's finding of metaphorical divergence in *düş/мүш* – Turkish oriented toward external eventfulness, Kyrgyz toward internal cognitive states – partially differs from the predictions of M. Erdal (2004), who noted that figurative meanings of verbs "are often formed on the basis of spatial representations". While the spatial origin is confirmed by the data, M. Erdal did not account for the bifurcation of metaphorical trajectories in related languages. The present results suggest that social and historical factors channel the metaphorisation process in different directions: the Turkish language reform of 1923 created a structural need for abstract event verbs, which *düşmek* filled, while the Kyrgyz sociolinguistic context favoured a different cognitive mapping.

These findings are further supported by recent comparative studies. N. Doğan (2022) established that Turkish transitivity is gradient, meaning low-transitivity verbs are precisely those that accumulate the widest range of abstract meanings – a structural explanation for the expansion observed in *almak* and *gelmek*. This differs from the Kyrgyz pattern, where the same verbs remain anchored to higher transitivity and more concrete event semantics. G. Kaçar's (2024) finding that semantic instability of Kyrgyz auxiliary verbs causes classificatory disagreements among grammarians aligns with the present study's observation that *кел, чык, ал, and мүш* are productive in compound constructions with modified semantics, as also documented by A. Tan (2006) for *tasvir fiilleri* in Kyrgyz Turkish. In the same way, K. Kamchybekova's (2011, 2013) research on the perception and taste-perception verbs of Kyrgyz reveals the tendency in the Kyrgyz language for semantically close verb groups to retain their concrete sensory sense instead of developing abstract meanings. F. Alijonova's (2025) review confirms that polysemy and context-dependent



meaning distribution represent the primary challenge in comparative Turkic lexicology – a challenge that the present typology of divergence types begins to address systematically. K.M. Abdulqader's (2024) finding that semantic changes in Turkish are primarily determined by socio-cultural and historical factors is consistent with the present study's conclusion that the Turkish language reform of 1923 is the key extralinguistic driver of semantic expansion. The present study extends this observation from loanword semantics to cognate verbal stems, demonstrating that the reform affected the entire high-frequency verbal core, not only the lexical layer.

Conclusions

The analysis of four cognate verbal pairs – *gel/кел, чык/чык, al/ал, and düş/мүш* – demonstrated that formal similarity of verbal roots does not imply semantic identity and that the divergences are systematic in nature. For *gel/кел* and *чык/чык*, the dominant factor proved to be the Turkish language reform, which drove semantic expansion and polyfunctionality. For *al/ал* and *düş/мүш*, cognitive metaphorisation along distinct conceptual lines proved decisive: Turkish developed event-oriented and pragmatic meanings, while Kyrgyz developed cognitive-internal ones. Three key contributions emerge. First, the study demonstrated that semantic divergence in Turkic cognates is a systemic pattern shaped by identifiable historical, sociolinguistic, and cognitive forces. Second, the typology proposed – expansion, specialisation, metaphorical divergence – provides a reusable analytical framework applicable to other

Turkic language pairs. Third, the study established a direct connection between the macro-level Turkish language reform of 1923 and micro-level semantic shifts in specific high-frequency verbs. The findings are of significance for translation studies, comparative linguistics, Turkology, and the methodology of teaching Turkic languages. Awareness of semantic divergences of cognate verbs helps prevent interference when studying related languages.

Future research could extend the proposed typology to other parts of speech and to further Turkic language pairs such as Uzbek-Turkish or Kazakh-Kyrgyz. Corpus-based methods and distributional semantic models could provide quantitative grounding for the frequency claims made here. A diachronic comparison with data from Yenisei runic texts would allow the historical depth of the observed divergences to be assessed more precisely. The phenomenon of morphophonological reorganisation in the fusion of cognates in Kyrgyz and Turkish also suggests that future studies could integrate semantic and morphophonological approaches within a unified classification framework.

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Кыргыз жана түрк тилдериндеги тектеш этиш негиздеринин семантикалык дивергенциясы

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Аннотация. Бул макалада жалпы түрк тамырына ээ болгон, бирок убакыттын өтүшү менен ар башка багытта өнүккөн кыргыз жана түрк тилдериндеги этиштик негиздердин семантикалык дивергенциясы (маанилик ажырашышы) изилденди. Изилдөөнүн максаты – этиштердин маанилик жылыштарынын конкреттүү типтерин аныктоо жана бул өзгөрүүлөргө түрткү болгон факторлорду тактоо болуп саналат. Изилдөө материалы катары түрк этиштеринин төрт жубу алынды: *gel/кел*, *çık/чык*, *al/ал* жана *düş/мүш*. Бул этиштердин контексттик колдонулушун жана туунду маанилерин салыштырмалуу талдоо аркылуу изилдөөдө семантикалык дивергенциянын үч өзгөчө тиби аныкталды: Семантикалык кеңейүү: Түрк тилиндеги *gel* жана *çık* этиштеринен байкалды; бул этиштер абстракттуу жана идиомалык маанилерге (мисалы, убакытка же натыйжага байланыштуу) ээ болушкан, ал эми алардын кыргыз тилиндеги когнаттары (түркөш сөздөрү) конкреттүү мейкиндикке негизделген тар семантикасын сактап калышкан; Семантикалык адистешүү (специализация): Кыргыз тилиндеги этиштерге мүнөздүү болуп, алар өздөрүнүн алгачкы маанилерин түрктүү сактап калышкан. Алардын маанилик түзүлүшү олуттуу өзгөрүүлөргө дуушар болбогондуктан, тилдин ээлери (ээлик кылуучулары) үчүн түшүнүктүү жана жүйөлүү бойдон калган; Метафоралык дивергенция: *al/ал* жана *düş/мүш* жуптарында кездешип, мында алгачкы жалпы маанилер таптакыр башка багыттарда өнүккөн. Түрк этиштери сырткы окуяларга жана прагматикалык аспектилерге басым жасаса, кыргыз этиштери ички когнитивдик абалдар жана социалдык концепттер менен байланышкан абстракттуу маанилерге ээ болгон. Изилдөө бул өзгөрүүлөрдүн бир катар факторлордун айкалышы менен шартталганын далилдеди. Түрк этиштериндеги семантикалык жылыштардын негизги кыймылдаткыч күчү 1923-жылдагы тил реформасы болгон, ал түпкү этиштерди татаал абстракттуу түшүнүктөрдү билдирүүгө мажбур кылган. Ал эми кыргыз этиштеринин семантикалык консерватизми кыргыз-орус кош тилдүүлүгүнүн шартында өнүгүүсү менен камсыз кылынган. Ошондой эле ар башка маданий чөйрөлөр жана метафоралык ой жүгүртүүнүн ар кыл когнитивдик моделдери да чечүүчү ролду ойногон. Бул илимий жыйынтыктар салыштырмалуу тюркологияга, лексикалык семантикага жана тилдер аралык интерференциянын алдын алуу максатында лингводидактикага (тил үйрөтүү үсүлүна) маанилүү салым кошот. Жыйынтыктап айтканда, кыргыз жана түрк тилдеринин этиштик негиздерин талдоо сөз маанилеринин диахрониялык өнүгүү механизмдерин тереңирээк түшүнүүгө көмөктөшүп, бул тилдерде сүйлөгөндөрдүн жалпы тарыхы менен маданий багыттарын кеңири ачып берет

Негизги сөздөр: салыштырма тил илими; лексикалык семантика; тектеш этиштер; метафоралык көчүрмө; семантикалык тарылуу; салыштырма тюркология; көп маанилүүлүк



Семантическая дивергенция когнатных глагольных основ в кыргызском и турецком языках

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Аннотация. В данной статье исследовалась семантическая дивергенция глагольных основ в кыргызском и турецком языках – двух родственных тюркских языках, которые, имея общие корни, развивались в различных исторических условиях. Цель работы заключалась в том, чтобы выявить конкретные типы смысловых сдвигов и определить факторы, предопределившие эти изменения. Материалом для анализа послужили четыре пары базовых глаголов: *gel/кел*, *çık/чык*, *al/ал* и *düş/мүш*. На основе сравнительного анализа контекстуального употребления данных глаголов и их переносных значений в исследовании были выделены три ключевых типа семантического расхождения. Семантическое расширение: наблюдалось в турецких глаголах *gel* и *çık*, которые приобрели абстрактные и идиоматические значения (например, связанные со временем или результатом действия), тогда как их кыргызские когнаты сохранили более узкую, конкретно-пространственную семантику. Семантическая специализация: проявилась в кыргызских глаголах, продемонстрировавших высокую устойчивость в сохранении своих исходных значений. Поскольку они не претерпели радикальных смысловых изменений, их семантическая структура осталась прозрачной и мотивированной для носителей языка. Метафорическая дивергенция: зафиксирована в парах *al/ал* и *düş/мүш*, где исходные общие значения развились в противоположных направлениях. Турецкие глаголы сфокусировались на внешних событиях и прагматических аспектах, тогда как кыргызские ушли в сферу абстрактных значений, связанных с внутренними когнитивными состояниями и социальными концептами. В ходе исследования было доказано, что данные изменения были обусловлены комплексом факторов. Главным стимулом семантической трансформации турецких глаголов стала языковая реформа 1923 года, вынудившая исконную лексику приспосабливаться к выражению сложных абстрактных понятий. Консерватизм кыргызских глаголов, напротив, поддерживался в условиях кыргызско-русского двуязычия. Не менее важную роль сыграли различия в культурной среде и когнитивных моделях метафорического мышления. Полученные результаты вносят вклад в сравнительную тюркологию, лексическую семантику и лингводидактику в целях предотвращения межъязыковой интерференции. В конечном счете, анализ кыргызских и турецких глагольных основ помогает глубже понять механизмы диахронической эволюции слова и проливает свет на культурно-исторические траектории носителей обоих языков

Ключевые слова: сравнительное языкознание; лексическая семантика; когнатные глаголы; метафорический перенос; семантическое сужение; сравнительная тюркология; полисемия

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