

Meruyert Daulet^{1*}, Seyfullah Yıldırım²^{1*}Corresponding Author, Doctoral Student, Mukhtar Auezov South Kazakhstan University, Kazakhstan, Shymkent, ORCID: 0009-0001-1647-6623 E-mail: meruyertdaulet@gmail.com²Doctor of Philosophy (PhD), Professor, Gazi University, Türkiye, Ankara, ORCID: 0000-0002-4543-6524 E-mail: syildirim@gazi.edu.tr**THE CUMULATIVE FUNCTION OF COSMONYMIC CONCEPTS
IN KAZAKH AND ENGLISH**

Abstract. The article examines the cumulative functions of cosmonymic concepts in Kazakh and Anglo-Celtic cultural contexts. Cosmonyms are viewed not merely as astronomical names but as semiotic repositories that preserve collective experience, worldview patterns, and value orientations of an ethnic community. The study aims to analyze the cultural and cognitive functions of the conceptual pairs Temirqazyq – Polaris, Jetiqaraqshy – Big Dipper, Ürker – Pleiades, and Qus joly – Milky Way. The research employs comparative linguocultural analysis, mythopoetic interpretation, and semantic examination. The findings demonstrate that in the Kazakh worldview, cosmic names regulate ecological cycles, seasonal rhythms, and ethical behavioral norms, forming a coherent cultural model linking nature and human life. In the Anglo-Celtic tradition, these cosmonyms primarily retain symbolic, religious, and poetic functions rather than practical ecological relevance. The study contributes to ethnolinguistics and cultural semiotics by clarifying how linguistic units encode long-term cultural memory and worldview continuity.

Keywords: cosmonyms; cultural memory; Polaris; Pleiades; Big Dipper; Milky Way.**For citation:** Daulet, M., Yıldırım, S. The Cumulative Function of Cosmonymic Concepts in Kazakh and English. *Tiltanym*, 2026. No.2 (102). Pp. 122-131. (in Kazakh)DOI: <https://doi.org/10.55491/2411-6076-2026-2-122-131>**Меруерт Даулет^{1*}, Сейфуллах Йылдырым²**^{1*}автор-корреспондент, докторант, Мұхтар Әуезов атындағы Оңтүстік Қазақстан университеті, Қазақстан, Шымкент қ., ORCID: 0009-0001-1647-6623 E-mail: meruyertdaulet@gmail.com²философия докторы (PhD), профессор, Гази университеті, Түркия, Анкара қ., ORCID: 0000-0002-4543-6524 E-mail: syildirim@gazi.edu.tr**ҚАЗАҚ ЖӘНЕ АҒЫЛШЫН ТІЛДЕРІНДЕГІ
КОСМОНИМДІК КОНЦЕПТІЛЕРДІҢ КУМУЛЯТИВТІК ҚЫЗМЕТІ**

Аңдатпа. Мақалада қазақ және ағылшын-кельт мәдениеттеріндегі космонимдік концептілердің кумулятивтік қызметі салыстырыла талданады. Космос атаулары этностың дүниені тану тәжірибесін, табиғатпен қарым-қатынасын, моральдық және рухани бағдарларын жинақтайтын мәдени-семиотикалық құрылым ретінде қарастырылады. Зерттеудің мақсаты – Темірқазық – Polaris, Жетіқарақшы – Big Dipper, Үркер – Pleiades, Құс жолы – Milky Way концептілік жұптарының мәдени-когнитивтік қызметін анықтау. Жұмыстың ғылыми маңыздылығы космонимдердің тек астрономиялық белгілер емес, ұрпақаралық мәдени жадты жеткізуші тілдік-символдық репозиторий екенін көрсетуімен айқындалады. Зерттеу барысында салыстырмалы лингвомәдени талдау, мифопоэтикалық интерпретация және семантикалық талдау әдістері қолданылды. Нәтижесінде қазақ дүниетанымында космостық атаулар экологиялық-тәжірибелік білімді, әлеуметтік мінез нормаларын және рухани бағыттылықты бекітетін тұрақты мәдени код қызметін атқаратыны анықталды; ал ағылшын-кельт дәстүрінде олар көбіне эстетикалық және символдық қабаттарда сақталған. Зерттеу нәтижелері этнолингвистика мен лингвомәдениеттану салаларында мәдени жадыны сипаттайтын концептілік жүйелерді әрі қарай талдауға негіз болады.

Тірек сөздер: космоним; мәдени жад; Темірқазық; Үркер; Жетіқарақшы; Құс жолы.**Сілтеме жасау үшін:** Даулет М., Йылдырым С. Қазақ және ағылшын тілдеріндегі космонимдік концептілердің кумулятивтік қызметі. *Tiltanym*, 2026. №2 (102). 122-131-бб. (ағыл. тілінде)DOI: <https://doi.org/10.55491/2411-6076-2026-2-122-131>

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КУМУЛЯТИВНАЯ ФУНКЦИЯ КОСМОНИМИЧЕСКИХ КОНЦЕПТОВ В КАЗАХСКОМ И АНГЛИЙСКОМ ЯЗЫКАХ

Аннотация. В статье проводится сравнительный анализ кумулятивной функции космонимических концептов в казахской и англо-кельтской культурных традициях. Космонимы рассматриваются как семиотические структуры, сохраняющие в языковой форме мировоззренческие модели, жизненный опыт и ценностные ориентиры этноса. Цель исследования – определить культурно-когнитивные особенности концептуальных пар Темірқазық (Полярная звезда) – Polaris, Жетіқарақшы (Большая медведица) – Big Dipper, Үркер (Плеяды) – Pleiades и Құс жолы (Млечный путь) – Milky Way. Научная значимость работы заключается в раскрытии космонимов как знаков, выполняющих функцию репозитория культурной памяти. Методологическую основу исследования составили сравнительно-лингвокультурный подход, мифопоэтическая интерпретация и семантический анализ. В результате установлено, что в казахской традиции космос функционирует как система экологически и социально упорядоченного бытия, где звездные образы регулируют ритмы жизни и нормы поведения. В англо-кельтской традиции космонимы преимущественно сохраняют символические и эстетические значения. Полученные выводы могут быть применены в этнолингвистике, культурологии и когнитивной семиотике.

Ключевые слова: космоним; культурная память; Полярная звезда; Плеяды; Большая Медведица; Млечный Путь.

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Introduction

Cosmic names constitute one of the oldest and most stable layers of human understanding of the world. The name of celestial bodies by people is not an accidental phenomenon, it is associated with the worldview model, spiritual and cultural orientation, value system and features of relations with nature of a particular ethnic group. In this regard, cosmonyms are considered not only as a nominative unit, but as a conceptual structure that performs a cumulative function, accumulating cultural memory and transmitting it from generation to generation.

The problem of cosmonyms is studied from various angles in the fields of onomastics, ethnolinguistics, cognitive linguistics, and linguocultural studies. However, although most studies consider the semantic or mythological nature of cosmonyms, their cumulative function, that is, the mechanism of storing and distributing cultural-cognitive information, has not been comprehensively and systematically analyzed. The relevance of this issue is reflected in this: cosmonyms contain historical experience, ethnic culture, a model of understanding the world, and spiritual values.

The purpose of the study is to identify the cumulative function of cosmonymic concepts in the Kazakh and English languages and to conduct a comparative analysis of their cultural and cognitive nature.

The object of the study is the conceptual structure of cosmonymic names in the Kazakh and English languages.

The subject of the study is the semiotic function of cosmonyms as a repository of cultural memory.

The theoretical significance of the study is determined by considering cosmonyms as a component of the national cultural code and conceptual system. The practical significance is that the results of the study can be used in teaching the continuity of language and culture, in the analysis of artistic and folklore texts, and in linguistic and cultural studies courses.

Within contemporary ethnolinguistics and cultural semiotics, linguistic units are increasingly interpreted as mechanisms of cultural memory rather than merely nominative signs. In this perspective, cosmonyms function as cognitive-cultural constructs that preserve collective experience, worldview models, and traditional ecological knowledge. Their cumulative function may be understood as the

capacity of linguistic signs to accumulate, preserve, and transmit culturally significant information across generations. Therefore, the study of cosmonymic concepts extends beyond the description of astronomical nomenclature and enters the domain of cultural cognition and symbolic representation.

Materials and methods

The research material includes selected cosmonymic names in the Kazakh and English languages. The main objects in the Kazakh language were the names Temirqazyq (Polaris), Jetyqaraqshy (Big Dipper/ Plough), Ürker (Pleiades), and Qus joly (Milky Way), which are widely represented in folklore. These cosmonyms were selected because they function not only as astronomical designations but also as markers of spatial orientation, temporal regulation, economic activities, and traditional conceptions of the universe. The English-language corpus included culturally significant cosmonyms such as Polaris, the Plough, the Milky Way, and the Pleiades, selected on the basis of their stable representation in English folklore, mythology, literary tradition, and historical astronomical discourse. These names are closely associated with mythological and aesthetic symbolism in European culture.

The comparative analysis was conducted according to four analytical parameters:

1. semantic content of the cosmonym;
2. mythological and symbolic associations;
3. practical-cultural functions;
4. cumulative role in preserving cultural memory.

Each conceptual pair was analyzed according to these parameters in order to identify similarities and differences in their cultural and cognitive functions. The first parameter was examined through semantic analysis, the second through mythopoetic interpretation, while the third and fourth parameters were analyzed using comparative linguocultural and cognitive approaches.

The research methodology was based on a complex of several interrelated methods. Semantic analysis allowed us to identify the main semantic structure of cosmonyms. Mythopoetic interpretation was aimed at revealing their role in the world of folk legends and beliefs. Comparative linguistic and cultural analysis was used to identify similarities and differences in the ways in which Kazakh and English cosmonyms preserve cultural memory. In addition, the cognitive approach allowed us to analyze the relationship of cosmonym concepts with national worldview models.

The applied methods made it possible to compare the cultural meanings of the selected cosmonyms and to determine their role in preserving cultural memory in the Kazakh and English linguistic traditions.

Literature review

Research on cosmonymic systems in Kazakh linguistics has primarily developed within the fields of folk astronomy, ethnolinguistics, onomastics, and linguocultural studies. Existing scholarship demonstrates that celestial names in the Kazakh worldview function not only as astronomical designations but also as carriers of ecological knowledge, temporal orientation, and cultural experience.

A significant contribution to the study of traditional astronomical knowledge was made by Kh. Abishev, who examined the role of celestial bodies in the nomadic perception of space and time. His research demonstrated that star names performed practical functions related to navigation, seasonal regulation, and the organization of economic activities. In this regard, cosmonyms appear as elements of an applied knowledge system closely connected with the everyday life of nomadic society (Abishev, 1962).

Within ethnolinguistic and mythological studies, the works of S. Qondybai considerably expanded the interpretation of cosmonyms. Unlike purely astronomical approaches, Qondybai viewed Temirqazyq, Jetyqaraqshy, Ürker, and Qus joly as components of a broader cultural-semantic system. According to the scholar, these names preserve mythological concepts, ritual practices, and collective models of behaviour, functioning as cultural codes through which ethnic memory is transmitted across generations (Qondybai, 2004). Similarly, O.P. Abutalip emphasizes that traditional astronomical terminology contains accumulated ecological knowledge reflecting long-term observations of natural cycles and seasonal changes (Abutalip, 2016). From this perspective, cosmonyms preserve traditional ecological knowledge and practical experience accumulated through long-term observation of natural and seasonal processes.

The cognitive and cultural significance of astronomical names is further highlighted in the studies of T. Zhanuzak, who argues that Kazakh star names emerged at the intersection of empirical observation and mythological conceptualization. Their semantic structure reflects centuries of cultural experience and collective interpretation of the universe (Zhanuzak, 2007). These findings indicate that cosmonyms reflect culturally specific ways of conceptualizing the universe and therefore constitute an important source for studying national worldview models.

Gullberg et al. (2020) examine cultural interpretations of the Milky Way across a wide range of Indigenous traditions and demonstrate that celestial phenomena function as repositories of ecological, navigational, and cosmological knowledge. The authors argue that the Milky Way serves not only as an astronomical object but also as a cultural memory space through which communities preserve and transmit knowledge about the natural world, social practices, and cosmological beliefs. This perspective is particularly relevant for the study of Qus Joly as a cumulative cosmonymic concept.

Comparative linguocultural research has also highlighted the importance of examining cosmonyms as carriers of cultural knowledge and national worldview. Snabekova et al. (2025) argue that Kazakh and English cosmonymic systems reflect different historical, linguistic, and cosmological traditions, while simultaneously preserving culturally significant information about the perception of celestial space. Their findings confirm that cosmonyms function not only as astronomical names but also as linguistic representations of cultural identity and collective experience. This study is particularly relevant to the present research because it demonstrates the value of comparative approaches in revealing the cultural and cognitive dimensions of cosmonymic concepts (Snabekova et al., 2025).

Recent studies in cultural astronomy emphasize that astronomical knowledge functions not only as a scientific system but also as a repository of cultural experience. Salimpour and Fitzgerald (2024) note that astronomy has historically played an important role in the formation of calendars, navigation systems, agricultural practices, and cultural traditions, demonstrating its significance in preserving and transmitting collective knowledge across generations.

Studies devoted to English and European cosmological traditions reveal a somewhat different functional orientation. The Admiralty Manual of Navigation (1973) demonstrates the practical navigational significance of Polaris in maritime culture, while Hesiod's *Works and Days* establishes a direct connection between the Pleiades and agricultural cycles. At the same time, European Christian traditions increasingly interpreted celestial objects through symbolic and religious frameworks. For example, the Milky Way was associated with pilgrimage routes such as the Walsingham Way and Camino de Santiago, reflecting its role in preserving spiritual and communal experience (Bogle, 2011).

Despite the considerable body of research devoted to folk astronomy, mythology, and cosmological vocabulary, existing studies have primarily focused on the semantic, ethnographic, mythological, or historical aspects of celestial names. Comparatively little attention has been paid to the cumulative function of cosmonymic concepts as mechanisms for preserving and transmitting cultural memory. Moreover, the comparative analysis of Kazakh and Anglo-Celtic cosmonymic systems from the perspective of cultural cognition and semiotic representation remains insufficiently developed. This gap determines the relevance and scientific novelty of the present study.

Results and discussions

The semantic basis of Kazakh cosmological names should be considered not only in connection with mythological plots, but also with the practical and cognitive experience of the people. A.N. Garkavets emphasizes that the cosmological vocabulary in the Kazakh worldview originates from ancient Tengri beliefs and is continuously transmitted to the modern cultural system through the Islamic period. Therefore, cosmonyms such as Temirqazyq (Polaris), Jetyqaraqshy (Big Dipper/Plough), and Ürker (Pleiades) function as cumulative symbolic formations that preserve, in linguistic form, traditional knowledge of spatial orientation, temporal regulation, and social organization (Garkavets, 2020).

The analysis of the cumulative function of cosmonym concepts in Kazakh and English has shown that these two linguistic and cultural systems have formed different models of cognition of the world, interpretation of time and space, and organization of ethnic memory. Cosmonyms are not only the names of celestial bodies, but also serve as a semiotic structure that accumulates historical and cultural

experience and passes it on to future generations. The stability of this structure is reflected in the long-term preservation of their semantic core. That is, cosmonymic concepts are a fundamental component of the worldview model of the ethnos and form the basis for the continuity of cultural memory. This conclusion is confirmed by a comparative analysis of such conceptual pairs as Temirqazyq – Polaris, Jetyqaraqshy – Big Dipper/Plough, Ürker – Pleiades.

1. *Temirqazyq – Polaris conceptual pair*

Temirqazyq is established in the Kazakh worldview as a fundamental cosmological concept representing the stable central point of spatial orientation. In folk practice, it has been perceived as a “fixed star” and functions as the primary marker of the four cardinal directions. The idea that “all stars move with the passing of the day, yet Temirqazyq remains visually immovable” is consistently emphasized in traditional knowledge. Consequently, within the nomadic chronotope, Temirqazyq serves as the “central coordinate” of direction and spatial stability.

The motivation of the term is directly associated with the ancient Turkic worldview. The name Temirqazyq derives from Mahmud Kashgari’s explanation that “the celestial sphere revolves around that peg.” Its Arabic designation, Qutb (“the pole star”), is likewise mentioned in traditional folk texts. Practical astronomical knowledge in the Kazakh context is also well defined: in determining latitude, an empirical rule states that “if one travels 111 km, Temirqazyq rises by 1°”. Additionally, folk astronomy describes the method of locating Temirqazyq by using the “two pointers” of Jetyqaraqshy (α , β UMa).

Since the Temirqazyq is perceived as an immovable central star in the folk worldview, it has become a stable cultural symbol that conveys the idea of not only spatial orientation, but also not losing one’s way in life.

In one of S. Toraigyrov’s verses, Temirqazyq appears as a distant light “raising its hand from the night,” a poetic image that reflects its traditional role as a guiding and steadying force. In everyday usage, expressions such as “If Temirqazyq does not shift...” show that the star is associated with protection, firmness of direction, and the idea of not losing one’s way. The long-established custom of placing the head of the deceased toward Temirqazyq also reveals its ethical and value-oriented significance: within traditional belief, the star marks a meaningful point in space that connects physical orientation with moral and spiritual direction (Abishev, 1962: 70).

Thus, the cumulative function of Temirqazyq extends beyond its role as a navigational marker. In the Kazakh worldview, it preserves knowledge related to spatial orientation, social practices, and ethical values. Its association with stability and the idea of following the right path allowed the concept to retain its significance in cultural memory. For this reason, Temirqazyq functions not only as an astronomical object but also as a means of transmitting culturally important knowledge and value orientations across generations.

In the European and English cultural and worldview systems, Polaris (North Star, Pole Star, Lodestar) is also accepted as a stable point of spatial orientation. However, this perception does not arise directly from the anthropocosmic whole, as in the nomadic chronotope, but rather is based on the experience of maritime navigation. Since maritime space was a key field in the geopolitical history of Great Britain, Polaris became an integral part of normative education in the Royal Navy and navigation schools as the “latitude star” – the main star determining latitude. The Admiralty Manual of Navigation clearly states that the height of the Polaris star above the horizon allowed seafarers to directly calculate geographical latitude. Thus, although Polaris was perceived in English culture as a fixed point of spatial orientation, its semantic core was based on practical maritime navigation experience rather than on a spiritual-ontological nature (Admiralty Manual of Navigation, 1973: 127).

However, in the cultural and symbolic interpretation of both traditions, a notable semiotic parallel emerges: Polaris/Temirqazyq forms the metaphorical core of ideas such as “direction”, “steadfastness,” and “remaining on the right path.” In English literary history, this symbolic role appears most clearly through the notion of the lodestar. One of the earliest examples is found in G. Chaucer’s *Troilus and Criseyde*, where the phrase “my righte lode-sterre” likens the beloved to a “guiding star”; here the star serves not only as a physical marker but also as a measure of human conduct (Chaucer Geoffrey, 1926: 383). W. Shakespeare continues this tradition: in *Julius Caesar* he describes the Northern Star as a standard of absolute constancy, and in *Sonnet 116* he portrays Polaris as “the star to every wandering

bark,” a figure that directs the soul adrift on the sea of life (Shakespeare, 1992: 99).

The comparison demonstrates that Temirqazyq and Polaris share a common semantic foundation based on the idea of orientation and stability. However, the cumulative function of these concepts developed in different cultural contexts. In the Kazakh tradition, Temirqazyq preserves the experience of nomadic spatial orientation and serves as a symbol of spiritual steadfastness. In the English tradition, Polaris accumulated meanings associated with maritime navigation and was later reinterpreted as a literary symbol of moral constancy. Despite these differences, both concepts function as mechanisms for preserving and transmitting culturally significant models of direction, order, and continuity.

2. *Jetyqaraqshy – Big Dipper/Plough conceptual pair*

Legendary and mythological materials related to the constellation of the Jetyqaraqshy (Big Dipper/Plough) demonstrate that the practice of orientation in time and space was not only practical, but also had a socio-regulatory and axiological character. The daily rotation of the constellation around Temirqazyq was used as a constant measuring mark in nomadic life to predict the change of day, the dawn, and the dark, cold night. This practice, along with folk astronomy, has become a real mechanism for regulating the cycle of livestock farming and migration. The approach of the star to the horizon or its decline was a cultural and temporal marker that determined the time to return to the farm, rest, or begin work (Abishev, 1962: 82). In the legendary tradition, the belief that Jetyqaraqshy either “lies down” or “never sets” made it possible to relate its movement to the rhythms of human life.

This phenomenon reflects a worldview in which space and time are perceived as interconnected, while the relationship between humans and the natural world is understood as a unified ecological and cultural system. In narrative structures where themes of pursuit and escape involve Jetyqaraqshy and Ürker, the movement of the stars acquires a metaphorical function that conveys the consequences of human behavior and actions. In this context, the motifs of fleeing, chasing, shifting, and hiding around these stars serve as symbolic and cosmological interpretations of responsibility and justice within society. From this perspective, Jetyqaraqshy functions as a symbolic celestial marker associated with the preservation of moral order and social responsibility. T. Zhanuzak notes that the image of Jetyqaraqshy is fixed in generational memory as a moral symbol reinforcing justice and retribution (Zhanuzak, 2007: 437).

The perception of Zhetyqaraqshy and the Big Dipper (The Plough) reveals a shared semantic foundation based on spatial orientation. In both traditions, the constellation functions as a stable reference point used to navigate the surrounding environment. However, the cumulative function of the concept developed differently in each cultural context. In the Kazakh worldview, Jetyqaraqshy became associated with the regulation of pastoral life, social organization, and moral order. In the English tradition, the names Big Dipper and The Plough emerged primarily from visual associations with familiar objects and were later connected with navigational and literary interpretations.

In the English context, the constellation’s practical significance becomes most visible in maritime and geographical navigation. For sailors and for the Royal Navy, the Big Dipper served as an observational guide, with its pair of “pointer stars” leading the viewer toward Polaris.

The old English name Charles’ Wain is connected to the Germanic-Scandinavian mythological tradition. It is related to the forms Karlavagnen, Karlsvognen and Karlsvogna, which originally referred to a wagon associated with the celestial sphere. In Scandinavian tradition, the constellation was also linked with Odin and interpreted as a symbol of cosmic order and governance (Allen, 1963). This suggests that within the English-Scandinavian cultural model, the constellation functions as a semiotic reference point associated with stability and the organization of the world order.

The comparison demonstrates that in both cultures the constellation serves as a marker for spatial orientation, although its accumulated cultural meanings differ. In the Kazakh model, it develops into an ethical and axiological code that regulates social behaviour and preserves cultural memory. In the English-Irish tradition, it is more commonly associated with navigation and with poetic or metaphorical imagery. Despite these differences, both concepts preserve culturally significant knowledge related to orientation and social experience, ensuring the continuity of cultural memory across generations.

3. *Ürker – Pleiades conceptual pair*

In the Kazakh worldview, the constellation Ürker functions as a primary natural and calendrical

indicator for orienting oneself in space and marking the change of seasons. Its rising high in the spring sky and its disappearance for an extended period during the summer – described in traditional terminology as “descending to the earth” – were closely linked with the cycles of pasture, changes in livestock condition, the ripening of grass, and the beginning of the kumys season. These phenomena were used in the economic practice of the people to predict natural processes, coordinate settlements and livestock movements, and align the rhythm of life with natural space. In this sense, Ürker served as a living regulatory mechanism of time and space in the system of Kazakh ecological knowledge. For example, in folk astronomy, the setting and rising of Ürker served as a key ethnic and practical indicator for determining the timing of spring planting, livestock birthing, seasonal grazing, and the schedule of migration. Analyzing traditional temporal formulas related to Ürker, Serikbol Qondybai notes that expressions such as “When Ürker and the Moon meet, the village changes its place”, “During the forty days when Ürker stays beneath the horizon, animals do not conceive and rams are not put to the ewe”, “When Ürker descends, the ground becomes warm”, and “When Ürker rises, broth becomes nourishing”, all preserve the close link between astronomical observation and pastoral practice. These formulas demonstrate the cultural and functional role of Ürker as a practical and temporal guide that integrates natural processes with everyday subsistence activities (Qondybai, 2004: 385 – 386).

O. P. Abutalip defines the significance of Ürker in folk astronomy in the following way: “Ürker is not merely the name of a star; embedded within it is information related to the movement of celestial bodies and the changing of the seasons” (Abutalip, 2016: 55). This suggests that Ürker functions not only as a natural indicator but also as a cumulative cosmonymic concept through which ecological knowledge and seasonal practices are preserved and transmitted across generations.

This function is also reflected in the European and English cultural space. In the ancient Greek agrarian tradition, the Pleiades were recognized as the main symbol of sowing and harvesting. Hesiod in his poem “Works and Days” clearly shows that the rise of the Pleiades is directly related to the beginning of the harvest, and the autumn setting is directly related to the plowing season (Hesiod, Works and Days, lines 383 – 404). This seasonal correlation shares a similar semantic basis with traditional Kazakh temporal formulas such as “When Ürker rises, winter begins” and “When Ürker descends, summer arrives”. In the Greek-Roman tradition, however, the Pleiades primarily functioned as a calendrical and agrarian marker, whereas in the Kazakh model they developed into a broader cultural code that regulates a mode of life aligned with natural cycles.

Structural similarities between the two cultures are also evident in their mythological layers. In Greek myth, seven maidens are pursued by Orion, who is transformed into stars by Zeus to protect them; in Kazakh legends, Ürker and Jetiqaraqshy are described as “chasing” each other. These plots allow us to interpret the movement of stars in the sky not only as an astronomical phenomenon, but also as a metaphor for human action, moral responsibility, and social order.

At the level of cumulative function, however, the difference is substantial. In the Kazakh worldview, Ürker serves as a repository of ecological knowledge, pastoral practices, and communal norms that regulate social life and interaction with the natural environment. Everyday activities such as determining the beginning of the kumys season, assessing the condition of livestock, and setting the time for migration were traditionally coordinated with the movement of Ürker, forming a structured pattern of intergenerational experience. In the European and English tradition, by contrast, the practical significance of the Pleiades gradually diminished and was retained mainly in symbolic, poetic and, to some extent, astrological interpretations.

Thus, the comparison of the conceptual pair Ürker – Pleiades demonstrates the significance of Ürker’s cumulative function in Kazakh cultural memory. Ürker functions as a cultural semiotic code that integrates economic practices, ecological knowledge, ethical norms, and the cyclical structure of time into a unified cosmological model.

4. *Qus joly – Milky Way conceptual pair*

In the Kazakh worldview, Qus Joly functions as a stable semiotic marker of the sky, used for spatial orientation, identifying movement routes and determining the structure of night-time activity. In the open steppe, where the starry sky served as the primary guarantee of direction and safety of travel, Qus Joly was conceptualised within the nomadic system of spatial navigation through expressions such

as “the sky road”, “the route of migratory birds” and “the trace of a bird’s wing”. These names indicate that its practical guiding role remained an integral part of folk astronomical knowledge for a long period of time.

An important layer of folk knowledge regarding the Milky Way is its perception as a dividing and guiding line of space. Kazakh herders, during their night migrations, distinguished south and north by looking at the direction of the Milky Way. This practice illustrates the continuation of the perception of space in ancient nomadic cultures through the three-dimensional model of heaven – earth – man.

The Milky Way also played a role in determining seasonal time. The location of the Milky Way relative to the horizon at midnight made it possible to determine the time periods of summer, autumn, winter and spring. This information was the main reference point in organizing the periods of pasture change, cattle grazing, spring and wintering. In this sense, The Milky Way serves as a cumulative temporal marker that regulates seasonal rhythms and pastoral practices. (Abishev, 1962: 218).

In folkloric and mythological texts, “Qus Joly” appears as a symbol that reflects the multilayered structure of the world. In Kazakh tradition, it is described as “the road taken by spirits”, “the bridge crossed by the human soul” or “the trail leading to the upper world”. Such interpretations express a worldview model that emphasizes the interconnection between the earthly and the cosmic levels of human existence.

In European tradition, including the English and Celtic cultural spheres, the Milky Way is commonly associated with ideas of spiritual movement, pilgrimage and the journey of the soul. In medieval England, it was known as Walsingham Way, interpreted as the “heavenly counterpart” of the pilgrimage route leading to the sacred shrine of Our Lady of Walsingham in Norfolk. The band of stars in the sky was thought to mirror the continuous line of pilgrims, and thus the Milky Way came to symbolize a path that reflects human travel on earth, as well as faith and spiritual orientation. This tradition shows that, in the European context, the cumulative function of the Milky Way shifted from practical or economic uses to a mechanism for preserving and transmitting communal religious experience across generations (Bogle, 2011).

In the Celtic (Welsh) worldview, the Milky Way is called Sarn Gwydion (“Gwydion’s Way”), and through the image of Gwydion, it is associated with the ideas of wisdom, word magic, and the cosmic path of the soul. In the myth of Lleu Llaw Gyffes, the hero’s transformation into a bird (eagle) after death, and the location of the constellations Aquila and Cygnus along the Milky Way, provide a clear visual basis for recognizing the celestial space as the path of the soul. In this model, the Milky Way acts as a cosmological bridge that ensures the passage of the spirit from one level to another.

Thus, the comparison of the conceptual pair Qus Joly – Milky Way demonstrates that both concepts preserve culturally significant knowledge about the relationship between humans and the cosmos. In the Kazakh worldview, Qus Joly functions primarily as a spatial and temporal guide that regulates ecological knowledge and seasonal practices, while also preserving spiritual interpretations of the universe. In the Anglo-Celtic tradition, the Milky Way developed mainly as a sacred and symbolic pathway associated with pilgrimage, the journey of the soul, and communal religious experience. Despite these differences, both concepts serve as cumulative cultural codes that transmit collective knowledge and cosmological representations across generations.

Table 1 – Comparative Analysis of the Cumulative Functions of Kazakh and English Cosmonymic Conceptual Pairs

Кесте 1 – Қазақ және ағылшын тілдеріндегі космонимдік концептуалдық жұптардың кумулятивтік қызметтерін салыстырмалы талдау

Таблица 1 – Сравнительный анализ кумулятивных функций космонимических концептуальных пар в казахском и английском языках

<i>Conceptual pair</i>	<i>Shared semantic basis</i>	<i>Kazakh cumulative function</i>	<i>English/Anglo-Celtic cumulative function</i>
Temirqazyq – Polaris	Orientation and stability	Nomadic navigation, ethical constancy, cultural memory	Maritime navigation, literary symbolism, moral steadfastness

Jetyqaraqshy – Big Dipper/Plough	Spatial orientation	Social regulation, moral order, pastoral rhythm	Navigation, mythological and literary imagery
Ūrker – Pleiades	Seasonal regulation	Ecological knowledge, pastoral practices, temporal regulation	Agrarian calendar, mythological symbolism
Qus Joly – Milky Way	Human – cosmos relationship	Spatial orientation, seasonal practices, spiritual pathway	Pilgrimage, journey of the soul, religious memory

The comparison demonstrates that Kazakh cosmonymic concepts preserve practical ecological knowledge and mechanisms of social regulation to a greater extent, whereas English and Anglo-Celtic traditions predominantly retain symbolic, literary, and spiritual interpretations. Nevertheless, in both cultural systems cosmonyms perform a cumulative function by transmitting culturally significant knowledge and worldview models across generations.

Conclusion

A comparative analysis of cosmonymic concepts in the Kazakh and Anglo-Celtic cultural spaces has revealed that their cumulative function is manifested at different structural and semiotic levels. Cosmonyms are not merely names of celestial bodies; they serve as cultural and cognitive repositories that accumulate the experience of the ethnos in interacting with nature, economic practices, moral and ethical principles, and spiritual worldview orientations.

The analysis of the conceptual pairs Temirqazyq – Polaris, Jetyqaraqshy – Big Dipper/Plough, Ūrker – Pleiades, and Qus Joly – Milky Way demonstrates that the cumulative function of cosmonymic concepts is realized through different cultural mechanisms. In the Kazakh worldview, cosmonyms preserve ecological knowledge, pastoral practices, systems of temporal regulation, ethical values, and models of social organization. In the English and Anglo-Celtic traditions, cumulative meanings are more frequently associated with maritime navigation, literary symbolism, mythological narratives, and religious experience. Despite these differences, both traditions use cosmonyms as mechanisms for preserving and transmitting culturally significant knowledge across generations.

The study demonstrates that cosmonyms function not merely as astronomical designations but as cumulative cultural concepts that encode collective experience and worldview models. Their comparative analysis reveals both universal patterns of cosmological conceptualization and culture-specific mechanisms of preserving cultural memory. The findings contribute to comparative ethnolinguistic and linguocultural studies by demonstrating how cosmonymic concepts function as mechanisms for preserving and transmitting ecological, social, and spiritual knowledge within different cultural traditions.

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