LEXICO-SEMANTIC AND COGNITIVE CHARACTERISTICS OF MOTION LEXEMES

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Abstract. The article investigates the lexico-semantic and cognitive characteristics of motion lexemes through a comparative analysis of the English and Karakalpak languages. Motion lexemes form a comprehensive semantic group that encodes not only spatial displacement but also properties like manner, speed, direction, and path. The study employs componential analysis, frame semantics, and conceptual metaphor theory to examine the structural features, semantic asymmetry, and prototypical organization of these lexical units. It highlights that the conceptualization of motion is shaped by human perception, physical experience, and typological constraints, such as the distinction between satellite-framed and verb-framed language structures.

Keywords: motion lexemes, lexico-semantic field, cognitive semantics, prototype theory, frame semantics, image-schema, semantic asymmetry, lexicographic description.

Annotatsiya. Maqolada ingliz va qoraqalpoq tillari qiyosiy tahlili misolida harakat leksemalarining leksik-semantik va kognitiv xususiyatlari tadqiq etilgan. Harakat leksemalari nafaqat makoniy o'rin almashishni, balki harakat usuli, tezligi, yo'nalishi va traektoriyasi kabi belgilarni ham qamrab oluvchi keng ko'lamli semantik guruhni tashkil etadi. Tadqiqotda ushbu lisoniy birliklarning tarkibiy xususiyatlari, semantik asimmetriyasi hamda prototipik tuzilishi komponent tahlil, freym semantikasi va kontseptual metafora nazariyasi asosida o'rganilgan. Harakatning kontseptuallashuvi inson idroki, jismoniy tajribasi hamda tillarning tipologik xususiyatlari bilan bog'liqligi ko'rsatib berilgan.

Kalit so'zlar: harakat leksemalari, leksik-semantik maydon, kognitiv tilshunoslik, prototip nazariyasi, freym semantikasi, obraz-sxema, semantik asimmetriya, leksikografik tavsif.

Аннотация. В статье исследуются лексико-семантические и когнитивные характеристики лексем движения на основе сопоставительного анализа английского и каракалпакского языков. Лексемы движения образуют обширную семантическую группу, которая кодирует не только пространственное перемещение, но и такие параметры, как способ, скорость, направление и траектория движения. С применением компонентного анализа, фреймовой семантики и теории концептуальной метафоры рассматриваются структурные особенности, семантическая асимметрия и прототипическая организация (центр и периферия) данных лексических единиц. Подчеркивается, что концептуализация движения обусловлена человеческим восприятием, телесным опытом и типологическими особенностями языков.

Ключевые слова: лексемы движения, лексико-семантическое поле, когнитивная лингвистика, теория прототипов, фреймовая семантика, образ-схема, семантическая асимметрия, лексикографическое описание.

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Lexemes expressing human motion constitute a comprehensive semantic group within the lexical system of a language, both in terms of quantity and content. In addition to conveying the change of a subject's position in space, they provide information regarding the direction, manner, speed, duration, purpose, medium, and outcome of the motion. Therefore, in the study of motion lexemes, it is essential not to limit the analysis merely to recording their lexical meaning, but also to determine their paradigmatic relations, position within the semantic field, component structure of meaning, cognitive basis, and contextual function.

The lexico-semantic characteristics of motion lexemes are manifested through uniting them into a system based on a common meaning, decomposing them into semantic components, defining their synonymic and antonymic relations, and analyzing their polysemy. Their cognitive characteristics are associated with the conceptualization of the motion event in the human mind, the activation of frames and image-schemas, and the identification of the central and peripheral members of the category.

Sh. Safarov emphasizes that cognitive linguistics studies language units in relation to human processes of cognition, perception, memory, and thinking [1: 10-12]. A motion lexeme does not merely name objective movement; it also expresses human knowledge about motion, physical experience, the point of observation, and the method of categorizing the event.

A lexico-semantic field is a set of lexical units united by a common semantic feature and entering into mutual systemic relations. The units within the field share a single integral seme, yet are differentiated by specific differential semes. The primary integral seme of the motion field is "the change of a subject's or object's position in space."

This seme unites such lexemes as go, come, walk, run, crawl, jump, enter, leave, rise, fall, approach, and return in English, and барыў, келиў, жүриў, жуўырыў, еңбеклеў, секириў, кириў, шығыў, көтерилиў, түсиў, жақынласыў, and қайтыў in Karakalpak into a single field. Specifically, walk - жүриў denotes regular pedestrian movement; run - жуўырыў indicates high speed; crawl - еңбеклеў refers to moving close to the ground; and jump – секириў signifies movement involving detachment from the ground.

The distinctive features that differentiate motion lexemes consist of direction, manner, speed, medium, source (initial point), goal (final destination), purposiveness, duration, boundedness, control, telicity (resultativity), and iterativity (repetition). While the lexemes come and go share a common seme of motion, come expresses approach toward the speaker or an important reference point, whereas go expresses moving away from that point. A similar deictic relationship is observed in the Karakalpak lexemes келиў and барыў/кетиў.

The lexico-semantic field is hierarchical. It is divided into microfields expressing general motion, pedestrian motion, rapid motion, upward and downward motion, motion between internal and external spaces, approach and departure, movement in water and air, circular and irregular motion, as well as the initiation and termination of motion. These theoretical groups will be expanded and statistically substantiated based on factual material in the second chapter.

In cognitive linguistics, categories are not closed systems composed of equal members. While some members express the category's meaning fully and neutrally, others possess specific features. On this basis, a distinction is made between the center and the periphery. A prototype is the most typical and easily conceptualized member of a category. Croft and Cruse demonstrate the significance of prototypical structure and graded relationships among members [4: 74-78].

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At the center of the motion field lie neutral lexemes such as go - барыў/кетиў, come - келиў, walk - жүриў, and move - қозғалыў. They do not obligatorily express a specific manner, speed, or emotional evaluation. Situated at the periphery are units with specialized semes, such as limp - ақсаңлаў, stagger - теңселип жүриў, tiptoe - аяқ ушында жүриў, creep - әсте, билдирмей жүриў, stroll - асықпай сейил етиў, dash - зымырап жуўырыў, and wander - тентиў.

While walk neutrally expresses pedestrian motion, limp activates the semes of physical difficulty and uneven steps; tiptoe involves moving on the tips of one's toes; creep entails slowness and stealth; and stagger triggers the seme of a loss of balance. In the Karakalpak language, some of these meanings are expressed by a single lexeme, while others are conveyed via analytical combinations. For this reason, semantic and cognitive features, rather than the word count, serve as the primary criteria in comparative analysis.

Prototypical structure does not possess rigid boundaries. While run is the primary lexeme for rapid movement in the context of physical motion, it shifts to the domains of management, activity, and spatial extension in constructions such as run a company, run a programme, and the road runs through the village. Context refines which category and semantic network the lexeme belongs to.

Componential analysis is based on decomposing the meaning of a lexeme into its smallest semantic features. The lexemes walk - жүриў possess the semes [+motion], [+spatial displacement], [+animate subject], [+pedestrian], [+by means of legs], and [–high speed]. Along with these general features, run - жуўырыў includes the seme [+high speed]. Their primary difference manifests in speed and the mechanism of stepping.

The lexeme crawl - еңбеклеў activates the semes [+motion], [+position of the body close to the ground], [+slowness], and [+involvement of hands and feet]; limp - ақсаңлаў triggers [+pedestrian motion], [+uneven steps], and [+physical difficulty]; while wander - тентиў activates [+continuous motion], [-definite direction], [-definite purpose], and [-final destination].

Componential analysis allows for a comparison of semantic volume across two languages. While walk and жүриў are close in their meaning of pedestrian motion, the semantic volume of жүриў is broader: Ол мектепке жаяў жүрди (He walked to school); Автобус бул жол менен жүреди (The bus runs/goes on this route); Саат дурыс жүрмей тур (The clock is not running correctly); Қурылыс ислери жүрмекте (Construction work is ongoing). In English, these meanings are expressed by different lexemes such as walk, go, work/function, and continue.

Formal equivalence does not always signify conceptual equivalence. A lexeme in one language may differ from its conditional equivalent in another language in terms of its semantic network, combinatory potential, or stylistic characteristics. Therefore, in comparative research, it is essential to examine all primary and derived meanings of lexemes within their contexts, rather than limiting the analysis to the first translation variant found in a dictionary.

Motion lexemes enter into relations of synonymy, antonymy, hyponymy, and hypernymy. Move is a hypernym, serving as the general name for motion, while walk, run, crawl, jump, fly, and swim are hyponyms that express specific types of movement. In the Karakalpak language, қозғалыў denotes the general concept, whereas жүриў, жуўырыў, еңбеклеў, секириў, ушыў, and жүзиў signify specialized types of motion.

The lexemes walk, stroll, stride, march, and wander are associated with pedestrian movement; however, stroll denotes a relaxed walk, stride signifies a large and confident step, march indicates disciplined movement, and wander expresses aimless walking. In Karakalpak, жүриў, адымлаў, сейил

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етиў, and тентиў also belong to the general field of pedestrian motion, but each contains a distinct manner, purpose, or evaluative component.

Antonymy is structured on the basis of opposing directions of motion: come – go / келиў – кетиў; enter – exit / кириў – шығыў; rise – descend / көтерилиў – түсиў; approach – move away / жақынласыў – узақласыў; and advance – retreat / алға жүриў – шегиниў. Antonyms share a common spatial schema, yet their trajectory directions are diametrically opposed.

The cognitive characteristics of motion lexemes are determined by human perception, categorization, and linguistic expression of an event. Humans do not mirror all physical properties of motion entirely; rather, they select parts essential for communicative purposes and connect them based on a specific schema. In the sentences The boy went/ran/hurried/rushed into the house, the same exterior-interior motion is profiled with different features of speed and manner.

In the Karakalpak language, the constructions Бала үйге кирди, Бала үйге жуўырып кирди, Бала үйге асығып кирди, and Бала үйге зымырап кирди bring different features to the foreground, while the objective foundation of the event remains similar. R. Langacker interprets linguistic meaning as a unity of conceptual content and the way it is viewed [7: 146-149].

Categorization is the cognitive activity of grouping diverse phenomena on the basis of shared features. Humans do not perceive every motion as an entirely new event; instead, they compare it with prior experience and assign it to a specific category. Even though the walking speed and purpose of different people vary, their movement is united under the category of walking - жүриў; if the mechanism and speed change, the category of running - жуўырыў is activated.

Categorial boundaries are not always rigid: intermediate states exist between fast walking and slow running. Walk is the prototype of pedestrian motion, whereas stroll - сейил етип жүриў, march - сапта жүриў, wander - тентиў, and limp - ақсаңлаў are members possessing additional semes. Members of a category differ according to their degree of proximity to the prototype [4: 74-78].

The category of motion is also structured on the basis of "family resemblance." While walk and run involve forward motion by means of legs; run and jump involve detachment of the body from the ground; crawl and climb entail the participation of hands and feet; and climb and jump are linked by the possibility of a vertical direction. Although there is no single manner inherent to all members simultaneously, partially overlapping features form a semantic chain.

A frame is a structured system of knowledge about a specific situation. According to C. Fillmore, the meaning of a word cannot be studied in isolation from the conceptual situation and the participants underlying it [5: 111-117]. The motion frame encompasses the slots of subject (agent), source (initial point), initiation of motion, manner, speed, trajectory, direction, medium, goal (destination), purpose, and outcome.

In the sentences The traveller reached the village and Жолаўшы аўылға жетти, not all stages of the motion are explicitly stated. However, reached - жетти activates the understanding that the subject was previously in another place, traversed a path, and arrived at the final destination. Similarly, depart - жолға шығыў profiles the initiation; walk - жүриў profiles the process; and arrive - жетип келиў profiles the outcome.

A scenario represents the chronological sequence of events over time. In the sentences He left the house, walked along the street and arrived at the station - Ол үйден шықты, көше бойлап жүрди ҳәм вокзалға жетип келди, the stages of exiting the source space, moving along the intermediate path, and

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reaching the final destination are clearly present. A complex scenario may also include components such as obstacles, changes of direction, return, or failure to reach the goal.

In literary texts, motion scenarios organize the development of events, the character's purpose, and spatial relationships. Therefore, the cognitive analysis of motion lexemes should not be restricted to isolated sentences but must be conducted at the broader contextual and textual levels.

An image-schema is a primitive cognitive structure formed on the basis of recurrent human physical and spatial experiences. In conceptualizing motion, the schemas of "source-path-goal", "container" (interior - boundary - exterior), "up-down", "front-back", "near-far", "center-periphery", "blockage-counterforce" (obstacle - overcoming it), and "rotation" (circular motion) are essential.

In the "source-path-goal" schema, the subject departs from an initial point, traverses a path, and arrives at a destination: She walked from the house through the garden to the gate / Ол үйден бағ иши менен дәрўазаға дейин жүрди. This schema is also mapped onto abstract goals: He is moving toward his goal / Ол мақсетине қарай алға жылжып атыр.

The "container" schema is rooted in the human experience of inside-outside spaces. Enter - кириў expresses motion from the exterior to the interior, while exit/go out - шығыў signifies movement from the interior to the exterior. This schema is metaphorically extended to abstract states, such as fall into depression, enter the profession, get out of trouble, as well as жумысқа кириў and қыйын жағдайдан шығыў.

The "up-down" schema is based on physical verticality and expresses success or crisis: rise to power, climb the career ladder, fall from power, and лаўазымы көтерилиў, абыройы төменлеў. In the "front-back" schema, move forward - алға жүриў denotes progress, whereas go back - артқа қайтыў and retreat - шегиниў signify a return to a previous state or a loss.

L. Talmy analyzes a motion event based on the components of Figure, Ground, Motion, Path, Manner, and Cause [3: 25-27]. In English, the manner is often expressed in the main verb, while the path is encoded in a satellite: run out, walk in, crawl across, jump over, fly away, swim back. In the Karakalpak language, these same components are conveyed through a combination of a gerund (converb) and a directional verb, such as жуўырып шығыў, жүріп кириў, еңбектеп өтиў, секирип өтиў, ушып кетиў, and жүзип қайтыў.

In the sentence The child ran out of the room, ran expresses the manner and out of expresses the path; similarly, in Бала бөлмеден жуўырып шықты, жуўырып expresses the manner, while бөлмеден ... шықты denotes the source and path. The distribution of identical cognitive components across different lexico-grammatical means manifests the typological characteristics of the English and Karakalpak languages.

Polysemy and semantic extension

Motion lexemes initially denote spatial displacement, but subsequently extend to express time, state, social activity, psychological experiences, and the development of events. Polysemantic meanings do not represent a random collection; rather, they form a network centered around a common conceptual base. For instance, go to school indicates spatial motion; time goes quickly denotes the passage of time; go mad signifies a change of state; and the meeting went well expresses the progression of a process.

In the Karakalpak language, in the examples Ол мектепке кетти (He went to school); Ўақыт тез өтип кетти (Time passed quickly); Сүт ашып кетти (The milk turned sour); Шырақ өшип кетти (The light went out); Ис жақсы кетип атыр (Business is going well); and Реңи кетти (The color faded), the lexeme кетиў expresses spatial motion, time, qualitative change, cessation of activity, process, and the

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disappearance of an external attribute, respectively. In all these cases, the schema of transitioning from one state to another is preserved.

The lexeme come - келиў metaphorically shifts from physical approach to the domain of achieving a result: come to an agreement - бир пикирге келиў; come to a conclusion - жуўмаққа келиў; come to power - ҳәкимиятке келиў; and come to an end - ақырына келиў. The schema of reaching a physical destination conceptualizes the attainment of an abstract result. A. Wierzbicka proposes explaining such complex meanings through simple experiential components [8: 14-18].

The semantic volume of the Karakalpak lexeme жүриў is broader than that of the English walk: жаяў жүриў - walk; машинада жүриў - travel/go by car; поезд жүрип атыр - the train is running; саат жүрмей қалды - the clock stopped working; сабақ жүрмекте - the lesson is in progress; and ол муғаллим болып жүр - he is working as a teacher. This divergence demonstrates the existence of a semantic asymmetry between conventional equivalents.

Conceptual metaphor and context

Physical-spatial experience is mapped onto abstract domains, generating such models as life is a journey, a goal is a destination, progress is forward motion, and success is upward motion [6: 5-9]. Expressions such as life journey, choose one's path, reach the goal, move forward, rise to power, as well as өмир жолы, өз жолын табыў, мақсетке жетиў, алға қәдәм таслаў, and жоқары мәртебеге жетиў are structured upon these conceptual models.

Context activates a specific meaning of a polysemantic lexeme. The verb fall denotes a physical drop in The child fell; a decrease in the temperature fell; the onset of time in night fell; a defeat in the city fell; a change of state in he fell silent; and an emotional state in she fell in love. In each instance, the schema of transitioning from a higher or stable state to another state is preserved.

Similarly, in Karakalpak, the lexeme түсиў expresses spatial motion, quantitative decrease, a stage of time, memory, state, and the initiation of an activity within contexts such as текшеден түсиў (to go down the stairs), температура түсти (the temperature dropped), кеш түсти (night fell), ойға түсиў (to recollect / fall into thought), қыйын жағдайға түсиў (to fall into a difficult situation), and жолға түсиў (to set off). Furthermore, context refines the emotional and evaluative characteristics of the motion.

Semantic asymmetry in English and Karakalpak

Semantic asymmetry refers to a phenomenon where the meanings and scope of application of a lexeme in one language do not fully correspond to its conventional equivalent in another language. A single lexeme in one language may correspond to multiple lexemes in another; a synthetic unit may be expressed by an analytical combination; primary meanings may be similar while derived meanings diverge; or a specialized concept may be rendered via a descriptive paraphrase.

For instance, the English verb crawl denotes an infant's crawling, an insect's creeping, the highly slowed movement of transport, and a human's moving with great difficulty. In Karakalpak, these are expressed by distinct units such as еңбектеў, жер баўырлап жүриў, жүдә әсте жүриў, and зорға жылжыў. Similarly, the English verb stagger corresponds to the analytical combinations теңселип жүриў and шайқалып жүриў.

Karakalpak structures such as барып келиў (go and come back), алып келиў (bring), алып кетиў (take away), кирип шығыў (go in and come out / pay a short visit), қайтып келиў (come back / return), and жүре бериў (keep walking / continue moving) demonstrate how components of motion are packaged differently across the two languages.

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In comparative analysis, the following criteria must be taken into account: the integral seme, subject type, manner, direction, trajectory, speed, goal, control, boundedness, telicity (resultativity), cognitive model, semantic extension, and cultural marking. These criteria enable the systematization of motion lexemes based not merely on their dictionary meanings, but on the conceptual knowledge they activate.

Definitions provided in explanatory dictionaries serve as an important source in the comparative study of motion lexemes. A dictionary definition provides foundational information regarding a lexeme's primary meaning, derived meanings, stylistic registers, and combinatory potential. However, since dictionary definitions across two languages do not share an identical structure, they must be compared based on semantic components rather than verbatim. For instance, in the definition of a verb of walking, the analysis determines the extent to which the moving subject, the instrument of legs, speed, and the mechanism of stepping are encoded.

In systematizing Karakalpak data, the seven-volume Explanatory Dictionary of the Karakalpak Language serves as the primary lexicographic source. The primary meanings, figurative senses, phraseological units, and illustrative examples of motion verbs are extracted from this dictionary. By comparing these with data obtained from English explanatory dictionaries, the semantic volume, the number of senses, and the specific cognitive features lexicalized by the lexemes in both languages are established.

Dictionary data must be verified against the context of literary texts. While a dictionary generalizes the normalized meanings of a lexeme, a literary text reveals its real-world semantic, expressive, and linguacultural potential in actual speech. For example, the ordinary meaning of "walking" can be enriched in context with additional features that reflect a character's age, physical condition, mood, social status, or purpose. Therefore, each motion lexeme is analyzed within the triad of "dictionary definition - contextual meaning - cognitive model."

In the research card index, it is practical to record the lexeme, lexical meaning, source and page number, subject of motion, direction, manner, speed, trajectory, goal, outcome, literal or figurative use, and the activated image-schema separately for each example. Such an arrangement allows for calculating factual material without duplication, generating statistical indicators across lexico-semantic groups, and comparing English and Karakalpak data based on unified criteria.

Integrating lexicographic and contextual analysis prevents errors stemming from assumed conventional equivalence. For instance, a general motion lexeme in one language may be expressed by several specialized verbs in another language depending on the context. Conversely, a Karakalpak construction consisting of a gerund (converb) and an auxiliary verb condenses manner and direction within a single syntactic structure in English. Thus, the unit of comparison should not be limited to an isolated word but must encompass the levels of the lexeme, construction, and frame.

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