

The Representation of Degrees of Quantity in the Linguistic Worldview

AIMUKHAMMETOVA AZIZA MAKHSETBAEVNA
Nukus State Pedagogical Institute, Uzbekistan

ABSTRACT

This article explores the representation of "quantity degrees" within the linguistic picture of the world, specifically focusing on a comparative analysis between the English and Karakalpak languages. Drawing on the principles of cognitive linguistics, the study investigates how quantity transcends mere mathematical measurement to become a linguocognitive mechanism shaped by national worldview, cultural values, and social experience. The author examines conceptual metaphors (e.g., "More is up," "More is space"), prototypical structures, and semantic gradients to demonstrate how quantity functions as a symbolic evaluator of reality. Findings suggest that while the cognitive foundations of quantity are universal, their linguistic modeling – ranging from English analytical structures to Karakalpak synthetic forms – reflects unique cultural connotations and aesthetic ideals.

Keywords: Cognitive linguistics, linguistic picture of the world, quantity concept, conceptual metaphor, Karakalpak language, English language, semantic gradient, cultural connotation.

INTRODUCTION

Language is the basis of human thought, the most essential tool in the process of perceiving, evaluating, and conceptualizing the world. According to the theory of cognitive linguistics, language is a modeled form of a person's conceptual system—the knowledge, experience, and worldview formed in their

consciousness [3: 17]. From this perspective, the category of "quantity" (quantity, degree) is considered an important cognitive unit in the semantic structure of language. It is directly related to the evaluative, measuring, and comparative functions of human consciousness.

LITERATURE REVIEW

The study of quantity in modern linguistics has shifted from purely grammatical descriptions to a cognitive-cultural framework. According to Dirven and Verspoor (2004), language serves as a modeled form of a human's conceptual system, where the category of quantity is central to the measuring and evaluative functions of consciousness.

1. *Cognitive foundations and metaphors*

Evans & Green (2006) argue that quantity is a universal component of the mind, often organized via spatial metaphors. In English, this is frequently mapped as "More is up" (e.g., rising prices). Conversely, Karakalpak scholars like E. Berdimuratov (1964) and A. Dauletov (1994) highlight that in Karakalpak, quantity is often conceptualized through metaphors of "width" and "volume" (e.g., *keñorın, dúnyatolı*), suggesting that plurality is perceived as the filling of a vast space.

2. *Prototypicality and semantic gradients*

Geeraerts (2006) defines the cognitive structure of quantity as a "prototypical structure" where abundance sits at the center and deficiency at the periphery. This creates a "conceptual continuum" or gradient, as noted by Ruiz de Mendoza and Dirven (2010). This study applies this to the English gradient (much–many–several–few) and the Karakalpak sequence (*kóp–birneshe–az–seyrek*).

3. *Functional and cultural perspectives*

Gómez-González & Mackenzie (2014) provide the framework for "functional-cognitive integration," suggesting that quantity in discourse carries subjective emotional weight. Culturally,

Chanchani and Theivanathampillai (2009) observe that "abundance" is valued differently across collectivist and individualist societies. In Karakalpak culture, quantity is often synonymous with blessing (qut, bereket), whereas in English discourse, it can frequently imply excess or a lack of control (e.g., too many).

RESEARCH METHODS

To investigate the conceptualization of quantity across different linguistic systems, this study employs a multi-dimensional methodology:

1. **Comparative-contrastive method:** This is the primary method used to identify similarities and differences in how English and Karakalpak languages model quantity. It allows for the discovery of universal cognitive bases versus culture-specific linguistic expressions.
2. **Conceptual analysis:** Used to decode the "mental maps" and metaphorical mappings (e.g., "Quantity as Space" vs. "Quantity as Height") that underlie lexical units in both languages.
3. **Contextual-semantic analysis:** This method examines how the meaning of quantifiers (like many or kóp) shifts from neutral measurement to subjective emotional evaluation depending on the discursive context.
4. **Linguoculturological analysis:** Employed to analyze proverbs, idiomatic expressions, and sacred numbers (e.g., the number forty in Karakalpak) to reveal how the national worldview "encodes" cultural values into the semantics of quantity.

RESULTS AND DISCUSSION

Evans and Green state that the concept of quantity is a universal component of the human mind [4: 87]. According to them, the category of "quantity" in language expresses a person's measuring relationship relative to the real world: it becomes an

expression of subjective perception through oppositions such as "many-few," "big-small," and "whole-part." Therefore, quantity is not just a mathematical concept or a grammatical unit, but appears as a conceptual symbol in the linguistic picture of the world.

In both the Karakalpak and English languages, the category of quantity has formed in connection with the people's worldview, cultural values, and social experience. E. Berdimuratov, in his work *Lexicology of the Modern Karakalpak Language* [9: 76], shows that units such as *kóp* (many/much), *az* (few/little), *tolı* (full), and *esapsız* (countless) do not only possess artificial semantic content but also carry emotional and evaluative meanings. For example, *kópadam* (many people) is not perceived merely in terms of number, but is expressed as a figurative quality representing social power. In English, "many people" is relatively neutral, while "too many people" conveys a negative evaluation [6: 142]. This situation is determined by the cultural connotations of the languages.

In the cognitive approach, the concept of quantity is structured through "mental maps" derived from human experience. D. Geeraerts defines this situation as a prototypical structure, where the concept of "abundance" is located at the center, while the periphery represents "deficiency" or "absence" [5: 32]. Consequently, the semantic coefficient between "many" and "few" is contextually and culturally variable.

The cognitive-linguistic significance of the quantity concept is accepted as one of the primary indicators of the human mind in the process of studying the relationship between language and consciousness. As V. Evans and M. Green noted, the concept of "quantity" is often perceived on the basis of spatial metaphors: "many-up," "few-down" [4: 91]. Phrases in English such as "a high number of students" or "low level of confidence" are examples of quantity-spatial mapping. In the Karakalpak language, this metaphor relies on a different conceptual model—"width" and "volume": units like *kópjurt* (many people/populous nation), *keñorm* (wide space), and *dunya* (world/vast amount) express quantity through space.

Ruiz de Mendoza and Dirven call quantity a "conceptual continuum" [7: 121] in the cognitive model. That is, quantity is perceived through variable, boundless degrees – this is considered the principle of "gradient." A. Dauletov [10: 112], studying the grammatical characteristics of the units *birneshe* (several), *júzlegen* (hundreds), and *esapsız* (countless) in the Karakalpak language, showed that each of them is a quantifier describing different levels of "plurality."

Linguists Gómez-González and Mackenzie point out that quantity images are formed in the language system through a mechanism of "functional-cognitive integration" [6: 56]. That is, the grammar and semantics of a language are closely interconnected, and each reflection of quantity takes on a new cognitive meaning depending on the context. This approach, within the framework of "functional-cognitive grammar," presents quantity as a form of measuring evaluation in a conversational situation.

From a culturological point of view, the concept of quantity reflects the typological consciousness of a people. Chanchani and Theivanathampillai, in their work *Typologies of Culture*, show that every culture differs in its approximate relationship to quantity – showing that in some societies "many" is perceived as a blessing, while in others it is a sign of excess [2: 42]. For example, in the Karakalpak people, expressions like *kóp mal – qut* (many cattle – prosperity) and *kópbala – bereket* (many children – abundance/blessing) are associated with positive evaluation, whereas in English, "too much money" indicates a negative excess.

Therefore, the concept of quantity, beyond being a universal category, is a linguacultural unit formed by the national worldview. B. Kutlimuratov calls this process "cultural semantic encoding" [11: 53]; that is, through language, a people embeds their economic, social, and religious values into expressions of quantity.

The concept of quantity is formed in the human mind through both metaphorical and symbolic models. As noted in the work *The Role of Metaphor*, "more" is always associated with "rising," "movement," and "life," while "less" is expressed

through metaphors of "falling," "disappearing," and "stillness" [8: 67]. Consequently, the concept of quantity is not merely presented at a lexical level but exists as a conceptual metaphor within the entire discursive structure.

One of the significant principles of cognitive linguistics theory is anthropocentrism. In *The Routledge Handbook of Linguistics*, Taylor emphasizes that all semantic categories in the language system are centered in the human mind. Quantity clearly follows this principle – it encodes the human "quantitative consciousness," namely the ways of perceiving and evaluating a specific volume through language.

The cognitive significance of the category of quantity makes the study of quantity levels a vital direction for cognitive linguistics. In a cognitive approach, quantity is "not a unit of measurement of the indicated object, but an evaluative sign of the human mind" [5: 29]. When an individual analyzes objects in their environment quantitatively, they apply a subjective evaluation mechanism based on their own experience. For instance, units such as "many" and "few" do not have precise mathematical measurements but are determined by human consciousness.

In A. Dauletov's work *Modern Karakalpak Language*, the category of quantity is described as a semantic bridge connecting the lexical and grammatical layers of the language system [10: 112]. Relatedly, words such as *birmeshe* (several), *júzlegen* (hundreds), and *esapsız* (countless) are considered a gradational representation of quantity; that is, they represent different stages of the concept of "plurality."

The system of semantic models for quantity descriptions within the linguistic picture of the world is studied under the theory of the "Linguistic Picture of the World" (языковая картина мира). This theory primarily analyzes language not just as a communicative tool, but as a conceptual model of a people's consciousness, experience, and worldview [3: 21]. Therefore, every language describes the cultural code of its people. The category of quantity, as part of that very code, becomes a cognitive form of evaluating the world.

V. Evans and M. Green point to the metaphor of "expansion and fullness" underlying the concept of quantity as a universal cognitive mechanism [4: 110]. According to this, in the human mind, many things are associated with the "filling of space," while few things are expressed through the concept of "emptiness." For example, in English, the phrase "a lot of information" evokes the metaphor of a "full space/place," while "little information" suggests a "scantly filled space." In the Karakalpak language, this is depicted through units like *dúnyatoli* (the world is full) or *azjurt* (few people), where "plurality" is presented as a symbol of abundance (positive) and "scarcity" as a symbol of deficiency [9: 82].

As D. Geeraerts noted, semantic models are built on a prototypical structure: the concept of "plurality" is the center, while "scarcity" is a peripheral element [5: 152]. This structure is depicted hierarchically in the language system. The English sequence "much-many-several-few-little" or the Karakalpak sequence *kóp-birneshe-az-seyrek* demonstrates such a hierarchical order. In this system, the level of quantity operates on the basis of a semantic gradient (gradation).

Analyzing the grammatical features of quantifiers in the Karakalpak language, A. Dauletov [10: 118] determines that they function as syntactic connectors alongside being quantity indicators. For example, in the sentence *Birnesheadamkeldi* (Several people came), *birneshe* is grammatically a numeral, but semantically it is a conceptual unit representing an "indefinite plurality." In English, the phrase "several people came" is equivalent to this meaning.

Gómez-González defines quantity as a "discursive configuration" within the framework of *Functional-Cognitive Grammar* [6: 59]. That is, in the context of conversation, quantity always carries an evaluative, emotional, or social meaning. For instance, while "so many problems!" grammatically indicates a number, semantically it provides an evaluation of "excess." The Karakalpak description *kópazap* (much suffering) creates the exact same cognitive-emotional evaluation mechanism.

According to B. Kutlymuratov, in folk culture, the category of "quantity" is associated with blessing and fullness [11: 46].

This is revealed through the evaluative function of quantity in Karakalpak proverbs such as: *Kóp mal – qut, kópsóz – azap* (Much livestock is a blessing, many words are a suffering), and *Kópbala – bereke* (Many children are a blessing). In English, proverbs like “Too much of everything is bad” and “Many hands make light work” adapt quantity to cultural and social norms. Thus, the concept of quantity becomes a semantic criterion for positive or negative evaluation within a people's system of values.

As stated in *The Role of Metaphor*, units describing quantity often manifest through spatial, energetic, or subjective experience metaphors [8: 67]. For example, the phrase “a flood of emotions” is linked to the flow of “much” water, while “a drop of hope” is linked to the metaphor of “little” liquid. Similar phrases are found in Karakalpak: *tasıptuwılǵansózler* (overflowing words) or *tamshuúmit* (a drop of hope), *úmitushqını* (a spark of hope). These rely on spatial and metaphorical models of quantity.

The concept of quantity is expressed within the system of conceptual symbols in language. The authors of *Typologies of Culture* indicate that the concept of “many/much” is valued positively in collectivist cultures, while it is sometimes evaluated negatively in individualistic societies [2: 85]. In Karakalpak culture, “*kópadam*” (many people) signifies strength, unity, and community; however, in English culture, “too many people” often implies discomfort or restriction. This is based solely on the social experience and the hierarchy of values of a nation.

Evans & Green describe this phenomenon through a “system of conceptual metaphors”: humans rely on metaphorical mapping formed on the basis of linguistic experience [4: 112]. Consequently, “many” is usually conceptually associated with “high energy,” while “few/little” is associated with “low energy.” These metaphors are grammatically reinforced in English through phrases like “rising numbers” and “low supply,” and in Karakalpak through verbs such as *arttı* (increased) and *azaydı* (decreased).

Gómez-González demonstrates from a “functional-semantic” perspective that linguistic units are evaluated within interrelated

contextual levels [6: 63]. That is, the meaning of one linguistic unit is formed in connection with other units within cognitive orientations. Therefore, units such as “many,” “much,” “a lot of,” and “few” create a semantic gradient within the “degree of quantity” system. In the Karakalpak language, this gradient is structured as *kóp* (many) – *birneshe* (several) – *az* (few/little) – *bir* (one) – *joq* (none). This describes the principle of “continuity of meaning” in language.

E. Berdimuratov notes that “descriptions of quantity” in the Karakalpak vocabulary are connected to the historical worldview of the people, where numbers like *júz* (hundred), *muń* (thousand), and *qırq* (forty) possess symbolic and sacred meanings [9, p. 95]. In English, the numbers “hundred” (plurality), “thousand” (infinity), and “seven” (ideality) express similar conceptual content. This similarity relies on the universal metaphorical foundations of human consciousness.

Thus, the semantics of quantity in the linguistic picture of the world is considered a multi-layered model formed by human conceptual consciousness, experience, and cultural values. It exists cognitively as a spatial metaphor, semantically as a prototypical combination, and culturally as a symbol of the value system. This multidimensional semantic system of quantity forms the language’s “representation of knowledge about existence.”

A comparative analysis of conceptual models in the English and Karakalpak languages shows that although the process of understanding quantity in the human mind is based on universal cognitive mechanisms, the language of each nation models this situation in its own unique way. The formation of the quantity concept in English and Karakalpak, the semantic structures of the tools expressing them, and their cultural connotations reveal distinct conceptual models within the “linguistic picture of the world” of these languages.

V. Evans & M. Green analyze the concept of quantity in cognitive linguistics based on the theory of conceptual metaphor and categorization [4: 130]. According to them, the primary conceptual model for quantity in language is based on the metaphors “More is up” and “Less is down.”

In English, this model is widely used in grammatical and lexical systems: “high number of visitors,” “low amount of confidence,” “increasing prices,” “decreasing profits.” In these units, the spatial “high-low” opposition conceptually organizes quantity. In Karakalpak, “plurality” is associated with space-volume metaphors: *keńorın* (wide space), *dúnyatoli* (world full), *kópjurt* (many people/much nation) [9: 88]. Here, “plurality” is described through the vastness and fullness of space.

A. Dauletov, analyzing the semantic function of units describing quantity in Karakalpak grammar, showed that words like *birneshe* (several), *biraz* (a little/some), *kóp* (many), and *esapsız* (countless) are used as quantifiers indicating the “degree of quantity” [10: 119]. There is a semantic parallelism with English units such as “a few,” “several,” “many,” “a lot of,” and “countless.” However, a conceptual difference is visible in their usage: in English, quantifiers are often built on analytical structures (a number of people, a great deal of work), whereas in Karakalpak, synthetic structures predominate (*birneshebala* – several children, *júzlegenadam* – hundreds of people).

From a cognitive perspective, quantity in English is more closely linked to the category of intensity. Within the framework of “Functional-Cognitive Grammar,” Gómez-González describes this phenomenon with an “energetic metaphor”: in units like “too much,” “so many,” and “very few,” the degree of quantity is combined with subjective evaluative intensity [6: 62]. In Karakalpak, this situation is described through units like *asırw* (exaggeration/excess), *júdákóp* (very many), and *azraq* (a bit less) [9: 51]. These units demonstrate the manifestation of quantity through feeling and emotionality, creating positive or negative connotations.

CONCLUSION

Thus, the representation of quantity degrees in the linguistic picture of the world reveals the close connection between language, consciousness, and culture. Using the English and Karakalpak languages as examples, this concept emerges as a linguocognitive mechanism that describes human social

experience, aesthetic values, and cultural ideals. Through language, the expression of quantity is transformed into a symbol that illustrates how a nation perceives and interprets the world.

REFERENCES

1. Allan K. 2015. *The Routledge Handbook of Linguistics*. London: New York: Routledge.
2. Chanchani, S. & Theivanathampillai, T. 2009. *Typologies of Culture: Understanding Cultural Diversity in Global Business*. New Delhi: SAGE Publications.
3. Dirven, R. & Verspoor, M. 2004. *Cognitive Exploration of Language and Linguistics*. Amsterdam: John Benjamins.
4. Evans, V. & Green, M. 2006. *Cognitive Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
5. Geeraerts, D. 2006. *Cognitive Linguistics: Basic Readings*. Berlin; New York: Mouton de Gruyter.
6. Gómez-González, M. A. & Mackenzie J. L. 2014. *Theory and Practice in Functional-Cognitive Space*. Amsterdam; Philadelphia: John Benjamins.
7. Ruiz de Mendoza, F. J. & Dirven, R. 2010. *Cognitive Linguistics in Action: From Theory to Application and Back*. Berlin; New York: De Gruyter Mouton.
8. *The Role of Metaphor in Language and Cognition*. 2012. Oxford: Oxford University Press.
9. Berdimuratov, E. 1964. Házirgi zaman qaraqalpaqtilileksikası. Nókis: Qaraqalpaqstan.
10. Dauletov, A. 1994. Házirgiqaraqalpaqtili. Nókis: Ilim.
11. Qutlımuratov, B. 2007. Mádeniyattanıw. Nókis: Qaraqalpaqstan.

AIMUKHAMMETOVA AZIZA MAKHSETBAEVNA
DOCTORAL STUDENT,
NUKUS STATE PEDAGOGICAL INSTITUTE,
UZBEKISTAN.
E-MAIL: <AAYMUXAMMEDOVA@GMAIL.COM>