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Philological Readings

**IMAGE-RELATED FORMAT OF KNOWLEDGE ABOUT
QUANTITY AS A QUALITY INTERPRETATION TOOL**

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Abstract

The article discusses some aspects of the basic universal categories of quantity and quality interaction. These categories occupy an important place in the conceptual picture of the human world as well as in our daily routines. Within the modern approach to language learning, a full analysis of its content is believed to be impossible without taking into account the role of man. This explains the close attention to the issues of the relationship between language and mind, the problem of correlating various mental formats of knowledge with their language representation. In this regard, considering the results of human cognition of the quantitative and qualitative aspects of being from the viewpoint of the cognitive approach seems to reveal new potential for analysis: identifying cognitive mechanisms that provide an opportunity to understand qualitative characteristics based on language units with quantitative meanings. Owing to the interpretive activity of human mind in the process of figurative understanding of the quantitative aspect of being, the qualitative characteristics of objects and real-life phenomena acquire the inferential meanings. The imagery conceptualization of quantity as a basis for further understanding of the qualitative characteristics of the reality reflects both the specifics of knowledge acquired within a certain culture, and the specifics of individual knowledge as an asset of an individual. The analysis of factual material shows that within the framework of the conceptual and thematic domain of MAN, the figurative format of knowledge about quantity has the potential to profile various external and internal characteristics of a person.

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1. Introduction

Within the framework of the modern approach to the study of language a full-fledged analysis of its content side is considered impossible without taking into account the role of a man who has a special inner vision of the world and himself in this world. The cognitive activity of a man is interpretive in nature since it implies constant 'explanation for himself' of various reality fragments, their properties, characteristics and relationships. According to Boldyrev (2017), there is a broad and narrow understanding of language interpretation. In the broad understanding, this is any mental operation mediated by language and aimed at obtaining new knowledge for the collective level. In a narrow understanding, language interpretation is the language cognitive activity of an individual which results in revealing the subjective understanding of the object of interpretation or its individual characteristics.

The process of interpretation would be impossible without the cognitive process of inference which is the basis of the process of quantitative interpretation of quality, since the distinctive feature of the concept QUANTITY is its ability to profile the qualitative characteristics of real-life objects and phenomena. A plausible explanation for this is seen in the fact that both quantity and quality as cognitive tools granted to man are designed to reflect the properties, attributes and characteristics of the real world. It allows interpreting qualitative characteristics on the basis of quantitative parameters. The ontologically motivated connection of quantity and quality, their 'explanatory' nature can serve as a signal that a language unit contains both explicit quantitative and implicit, potentially inferred, qualitative meanings.

Plotinus (1994) also noted that "sensations do not provide the nature of things per se, but only modifications of the sensing subject, and the decisive voice in this doubt may no longer be perceptions, but mind or reason" (p. 64). Consequently, perceptions do not provide the quality of the object itself, it is only the reaction of our mind, the result of its interpretive activity, revealed in the subjective attribution of characteristic properties to the object. The ontologically determined relationship of quantity and quality enables exploring quantity as a format for interpreting quality, as a subject-oriented process of knowledge configuration about the quantitative-qualitative aspect of being.

2. Problem Statement

The concept QUANTITY as an interpretive concept of the modus type is associated with the inclusiveness of man and the ability to interpret objects and phenomena of reality in terms of quantitative properties. The results of this reflection are the language units representing the knowledge derived from the understanding of the quantitative aspect of being. They are the quantitative evaluation of objects and events of the surrounding reality representing the individual's attitude to the estimated quantity and complying with the communicative rules adopted in the linguocultural community to which the subject of evaluation belongs. The function of quantity evaluation is thus the main characteristic of the quantity functioning as a modus type category.

The linguistic category of quantity formed by linguistic units of various levels serves to indicate the attitude of the individual to the quantity that can be represented differently in a language. The ability of a man to form the idea of quantity without referring to counting is the key to understand the ways of representing the results of non-scientific methods of quantity cognition in a language. One such way of

understanding the quantitative aspect of being is the image-related conceptualization of quantity which forms the basis for further understanding of quality.

3. Research Questions

The description of various cognitive and linguistic mechanisms functioning in the formation of qualitative interpretive meanings on the basis of quantitative parameters allows demonstrating possible interpretation processes revealing the creative nature of human thinking. Thus, the main research question is: What are the mechanisms of image-related quantity conceptualization and what is their interpretive potential in terms of quality?

4. Purpose of the Study

This study aims at revealing cognitive and linguistic mechanisms of image-related conceptualization of quantity and at representing their interpretative potential in relation to quality.

5. Research Methods

The study is based on the procedure of conceptual analysis which allows revealing various aspects of image-related conceptualization of quantity. The research basis was the language units with quantitative semantics in English, French, and Russian.

6. Findings

It was Plotinus (1994) who noted that

people from the very beginning, from their birth, and later on, (for the purpose of cognition) use feelings much more than the mind, and as a result, of course, they are primarily interested in sensual things.<...> Our concepts about sensual things which are developed by the rational activity of the soul and which should not be considered even knowledge, but rather opinions, represent something much later than these things themselves, and are nothing but their images, reflections. (pp. 113-120)

Both Russian and foreign linguistics do not question the key role of sensory perception in image formation. As a result, the mind images are a special form of sensory-perceptive process at various levels of cognitive structures, whose main task is the integration of impressions and sensations received through various information channels. According to Leontiev (1979), an object cannot be characterized by any single property, it is always a node of properties, and an image is a "node of modal sensations". When perceived, the same property of an object causes perceptions that are completely different in modality. These perceptions merge again into a single mind image (Leontiev, 1979). Arutyunova (1998) also emphasizes that the image "combines data coming in through various channels of communication between man and the world" (p. 315). Thus, visual perception is one of the fundamental channels for

receiving information about the world, which explains its detailed representation in the language. However, the images “feed” from other information channels, be it hearing, smell, taste or tactility, because they are conceptual analogues of direct sensory experience obtained from the outside world ('the world out there') with the help of the senses. American linguistics understands a language as the various mind images verbalization, within the framework of *Cultural linguistics*, the developed approach to the analysis of linguistic facts. The prototypical function of these images is considered to be the representation of the world. Perception imagery, therefore, plays the decisive role in the life activity of the individual and can be interpreted as “a special way of conceptualizing reality” (Goldberg, 2013, p. 72). That is why individual, often image-related conceptualization of quantity is of particular interest as the basis for further understanding of the surrounding reality qualitative characteristics. This basis comprises the specifics of both the knowledge acquired within a particular culture, and the individual interpretation.

Noun is one of the means to represent the concept QUANTITY in a language. Nouns possess the richest associative potential thus being able to activate the mind images behind them. Historically, the noun goes back to the basic diffuse category of Name, which combined the meaning of thingness, attributiveness and quantitiveness, on the basis of which the object itself, its attributes, and the number were later distinguished (Kozlova, 2000). Therefore, the original ideas about quality were of a sensual and substantive nature: quality was represented through the sensually perceived object of reality which denoted a Name in a language. For example, ‘hardness’ was expressed through comparison with a stone. The concepts of “hard” and “stone” were not separated. Primitive man thought the subject and its attribute as inseparable unity, the name of the object meant not only the substance, but also its property (Ил’ин, 1972). Further distinction between thingness and attributiveness determined the key role of substantive nouns, i.e. to name and categorize objects and phenomena of reality, and that of adjective as an attribute name, i.e. to assign characteristics to the substantive name. Human mind preserved until now the inherent tendency to perceive the surrounding reality in the substantive, essential, i.e. “objectified” images. This tendency implies the simultaneous interpretation of the object and its attributes and accounts for the significant interpretive potential of nouns in relation to various characteristics of the real world objects. The substantive image forms the basis for metaphorization and categorization by the paragon.

In general, metaphorical re-interpretation is one of the forms of reality cognition and is the cognitive basis for such linguistic mechanisms as metaphor itself and comparison. The cognitive mechanism of metaphor is known to be based on the simultaneous activation of two cognitive domains: the source domain is the area of interpretive knowledge, and the target domain is the area of interpretable knowledge. Comparison as a cognitive mechanism transfers the characteristics (attributes) from one object to another while simultaneously activating both interpretative and interpretable cognitive domains. Aristotle pointed at the similarity of metaphor and comparison, considering metaphor to be a hidden comparison.

These mechanisms seem to be related to the search for a “better reference sample”, a paragon that “constructs an object not so much as an abstract typical representative of a category with the maximum number of basic categorical features, but as its best representative in the literal sense of the word, as a rule, on a very limited set of features. A paragon represents a specific object in which a certain positive or negative evaluative attribute is manifested as much as possible (Iriskhanova, 2012). Paragons are the

"anthropometric position which serves as the filter through which, as if through colored glass, the world is perceived" (Teliya, 1986, p. 39). Nouns can function as unconventional image-related paragon reflecting, e.g., subjective quantitative evaluation, since the primary interpreted knowledge about the world presented in the language system is the basis for the secondary interpretation, i.e. when lexical units of some lexical categories are used in their secondary functions to designate the characteristics of thematically different objects (Boldyrev, 2017). As in the examples:

1) *At 1.85cm and 156 kg, he's a mountain of muscle and flesh* (www.mh.co.za).

2) Tous les regards se concentrent sur la montagne de muscles qui occupe une bonne partie de la cuisine à lui tout seul (Edwige, 2011, p. 160).

3) Посреди комнаты стоял Родя, я видела его сбоку, но Кутепов при росте примерно метр восемьдесят пять имеет вес около ста сорока килограммов, поэтому не узнать эту гору мышц было нельзя. Причем именно мышц (Dontsova, 2007) (lit. Rodya stood in the middle of the room, I saw him from the side, but Kutepov, with a height of about one meter eighty-five, had a weight of about one hundred and forty kilograms, so it was impossible not to recognize this mountain of muscles. And the muscles they were).

"Constitution" as a constituent of a single conceptual space "external characteristics" is represented in the examples above by metaphorical constructions *a mountain of muscle and flesh/ la montagne de muscles/ гора мышц*. Comparison with this natural object, nominating it for the role of a paragon is due to the knowledge of its dimensional characteristics and profiling of the "large size" attribute. This, in turn, leads to the further actualization of high-quality interpretive meanings, such as "healthy", "strong", "in good physical shape", "sportive".

Interpreting intellectual abilities as a component of the conceptual area of "cognitive characteristics" can also be subjected to secondary conceptualization and image-related comprehension. According to the theory of conceptual metaphor (Lakoff, 1993), the "container" metaphor is one of the key spatial metaphorical models. Thus, a person can be represented as a repository or container for collecting and storing information, which makes it possible to speak of information as a substance that fills a repository-container, and of a person as an "inexhaustible source" from which information can be drawn in a large, quasi-infinite amount. This sets conditions to form such qualitative interpretive meanings as "smart", "educated", "well-read":

4) He was a mine of information (Forsyth, 2004, p. 83).

5) ... les personnes âgées sont une mine de connaissances pour la société. On a mis trop longtemps à s'en apercevoir (aranea.com).

6) Не отказались войти в редколлегию журнала и такой блестящий человек, как Валентин Катаев, и умница и кладезь знаний Борис Николаевич Агапов, в которого я влюбился во время нашей поездки в Японию (НКРЯ). (Lit. Such a brilliant man as Valentin Kataev, and the clever man and fount of knowledge (mine of information), Boris Nikolaevich Agapov, with whom I fell in love during our trip to Japan, both did not refuse to enter the editorial board of the magazine (RNC).

The analysis of empirical material also indicates the fact that the image-related format of knowledge about quantity is often associated with the interpretation of human moral qualities. This is probably due to the obvious complexity of the abstract entities' measurement', which "are not observable,

their isolation and identification reflects the level of knowledge of the world, undoubtedly, higher than that of the bodily experience of entities/objects” (Kubryakova, 2012, p. 149). So, it seems almost impossible to accurately assess the number of positive qualities that a person has, such as talent, benevolence or degree of attractiveness. However, according to Arutyunova (2005), “a man likes to say about something that can be neither calculated, nor counted or weighed, or even truly estimated” (p. 20).

Comparison with the paragon can be considered as one of the mechanisms for quantitative evaluation concretization, due to which the phenomena that have no unit of measurement are quantitatively interpreted in a language. As in the examples:

7) He’s a terrific kid, he has a heart bigger than the world, and everybody loves him (Steel, 2001).

8) *Je connais des gens peu scolarisés qui ont le coeur grand comme le monde* (www2.bmo.com)

9) Где-то за ними скрывалось сложное и огромное – человеческая душа больше, чем мир, потому что в ней он обрызган еще живыми слезами и согрет радостью (НКРЯ). (Lit. Somewhere behind them was something complex and huge - the human soul bigger than the world, because he is spattered with live tears and warmed with joy in it (RNC)).

The paragon image of comparison "the world" presented in these examples testifies the universality of this image for interpreting large sizes. The use of this paragon leads to the formation of interpretive meanings characterizing various inner qualities of a person, the facets of one's soul. It is noteworthy that in comparison with adjectives, 'measurement' in terms of a substantive image is much more accurate. Compare:

10) *He had a huge heart*, and it showed (Steel, 2008, p. 78).

11) Tous ne tarissent pas d’élèves sur «un grand homme au grand coeur» (lefigaro.fr).

12) – *С огромным удовольствием проведу с вами время, счастлив встретиться с умной и красивой дамой, обладающей большим сердцем...* (lit. - With great pleasure I will spend time with you, I am happy to meet with an intelligent and beautiful lady with a *big heart* (Dontsova, 2012).

The analysis of the empirical material indicates that the image paragons are motivated both by general encyclopedic knowledge and culturally specific knowledge. Thus, for example, the measurement of the human ego as a psychological substance that constitutes a single conceptual space of “internal characteristics” can be based on ideas related to the dimension of a natural object (13), an artifact (15), a city (14):

13) ‘You are too famous for normal people and if you went out with a group of famous women, there would inevitable be someone with an iceberg-sized ego who would want the conversation to be about them, their show, their publicist, their fans’ (Kelly, 2012, p. 34).

14) *Je suis un acteur, ... donc j’ai un ego gros comme Londres* (Otchet, 1999).

15) *В институте имени Олесья Иванко учатся четыре идиота с интеллектом курицы, зато самомнение у них выше Останкинской башни* (lit. Four idiots with chicken intelligence study at the OlesIvanko Institute, but their self-esteem is higher than the Ostankino Tower (Dontsova, 2012).

These examples illustrate various image-related understanding of the attribute of "large size". Thus, example (13) indicates a universal idea of the size of a natural object such as an iceberg.

In the example (14), the understanding of the size of London appears to be based on a comparison with the cities of France, which are much smaller than the capital of England (compare, e.g.: *Paris may*

be the capital city of France, but it seems Lilliputian when compared to the sprawling metropolis that is London (Van den Bergh, 2010, p. 113).

In the example (15), the actualization of the attribute “large” is due to the knowledge about the height of the Ostankino television tower (over 300 m) and the mental correlations “above \leftrightarrow much”, “below \leftrightarrow little”, which are formed on the basis of the spatial orientation metaphor “more is up; less is down” (Lakoff & Johnson, 2008, p. 38). The attribute “big” profiling in the examples above gives grounds for constructing such qualitative interpretive meanings regarding the psychological characteristics of a person as “self-confident”, “ambitious”, “purposeful”, “vain”, etc. The examples (14) and (15) notably illustrate the cultural markedness of the reference samples.

7. Conclusion

Thus, such cognitive mechanisms as conceptual metaphor/comparison primarily constitute the basis of the image-related configuration of knowledge about the quantitative aspect of being. The processes of conceptual integration, generating metaphors and comparisons, as a rule, are based on mind images reflecting the experience of the individual obtained within a certain culture. This experience, in turn, is the basis for creating the initial mental space which serves as the source domain for metaphor / comparison.

The use of nouns as quantitative evaluation paragons which syncretically represent a whole set of features due to the images they construct is conditioned by the general tendency of the language to the nominative representation of thought, since “human mind is essentially substantive. Thingness constitutes the cementing category of thought. Ideas and concepts about objects are the initial and final point of the thought movement” (Spirkin, 1960, p. 34).

Mind images form the cognitive basis, since they reflect the results of the surrounding world cognition within a given culture, as well as individual interpretation of perceptual information about reality. This cognitive basis in turn serves as the ground for the image of the world formation and the motivation the semantics of language units.

References

- Arutyunova, N. D. (1998). *Yazyk i mir cheloveka [Human Language and World]*. Moscow: Yazykirusskoy kul'tury.
- Arutyunova, N. D. (2005). Problema chisla [The Problem of Number]. In *Logicheskiy analiz yazyka. Kvantifikativnyy aspekt yazyka [Logical Analysis of Language. Quantitative Aspect of Language]*. Moscow: Indrik.
- Boldyrev, N. N. (2017). Yazyk kak interpretiruyushchiy faktor poznaniya [Language as the Interpretative Factor of Cognition]. In *Interpretatsiya mira v yazyke [World interpretation in a language]* (pp. 19-81). Tambov: Publishing House of TSU.
- Dontsova, D. A. (2012). *The Life Water for the Dead Princess*. Moscow: Eksmo.
- Dontsova, D. A. (2007). *The wife of my husband*. Moscow: Eksmo.
- Edwige (2011). *Les Ailes ne font pas l'Ange*. Saint-Denis: PubliBook,.
- Forsyth, F. (2004). *Avenger*. London: Corgi Books.
- Goldberg, V. B. (2013). Obraznost' kak sposob kontseptualizatsii deystvitel'nosti (na materiale obraznykh glagol'nykh sravneniy) [Imagery as a Means to Conceptualize Reality (exemplified by figurative verbal simile)]. *Voprosy Kognitivnoi Lingvistiki [Issues of Cognitive Linguistics]*, 1(34), 64-75.

- Il'in, I. V. (1972). *Ontologicheskie i gnoseologicheskie funktsii kategoriy kachestva i kolichestva* [Ontological and Gnosiological Functions of the Quality and Quantity Categories]. Moscow: Vysshajashkola.
- Iriskhanova, O. K. (2012). Stereotipy, etalony i drugie sotsiokul'turnye modeli v diskurse: skhodstvo i razlichiya [Stereotypes, Paragons and Other Socio-Cultural Models in Discourse: Similarities and Differences]. *Vestnik Moskovskogo gosudarstvennogo lingvisticheskogo universiteta [The Moscow State Linguistic University Herald]*, 5(638), 173-184.
- Kelly, C. (2012). *Once in a Lifetime*. London: Harper.
- Kozlova, L. A. (2000). Neodnorodnost' semanticheskogo prostranstva predmetnosti i yeye eksplikatsiya v sintaksise [Irregularity of the Thingness Semantic Space and its Explication in Syntax]. *Sovremennoe lingvisticheskoe obrazovanie: mir izuchaemogo yazyka [Modern Linguistic Education: The World of the Studied Language]*, 12-19.
- Kubryakova, E. S. (2012). *V poiskakh sushchnosti yazyka. Kognitivnye issledovaniya* [In Search of Language Essence. Cognitive studies]. Moscow: Znak.
- Lakoff, G. (1993). The Contemporary Theory of Metaphor. In A. Ortony (Ed.), *Metaphor and thought* (pp. 202-251). New York, NY, US: Cambridge University Press.
- Lakoff, G., & Johnson, M. (2008). *Metaphors we live by*. Chicago: University of Chicago Press.
- Leontiev, A. N. (1979). Psikhologiya obraza [Image Psychology] *Vestnik Moskovskogo gosudarstvennogo universiteta [The Moscow University Herald] Series 14. Psychology*, 2, 3-13.
- Otchet, A. (1999). *L'humoriste Mark Thomas, trublion de la télévision britannique*. Le Courier de l'UNESCO.
- Plotinus (1994). *Izbrannyye traktaty: v 2 tomakh* [Selected Works: in 2 volumes]. Moscow: RM.
- Spirkin, A. G. (1960). *Proiskhozhdenie soznaniya* [Origin of Mind]. Moscow: Gos. izd-vo polit. lit-ry.
- Steel, D. (2001). *The House on Hope Street*. London: Corgi Books.
- Steel, D. (2008). *Bungalow 2*. London: Corgi Books.
- Teliya, V. N. (1986). *Konnotativnyy aspekt semantiki nominativnykh edinits* [Connotative aspect of the nominative units semantics]. Moscow: Nauka.
- Van den Bergh, H. (2010). *How to sound clever*. London: A&C Black.