#### UDC 81-11

#### QUANTITY INTERPRETATION IN THE ENGLISH LANGUAGE

#### S.N. Stepanenko, O.V. Fedotova

Belgorod State National Research University (Belgorod, Russia) sstepanenko@bsu.edu.ru; fedotova@bsu.edu.ru

The present paper deals with the issues pertaining to the role of language in the quantity interpretation process in modern English. The authors attempt to describe the language means of quantity interpretation at different linguistic levels to show the level peculiarities of quantity interpretation in each case.

To prove that the process of linguistic quantity interpretation is integrative and multiple-factor at different language levels, the authors execute the analysis of the quantitative meanings and senses formed by the lexical and grammatical (morphological) linguistic units of quantitative semantics. Cognitive and linguistic mechanisms of quantity interpretation as well as additional linguistic factors of quantitative sense formation receive consideration. Thus, the paper presents the findings concerning the specificity of each level in the process of quantity interpretation.

Studying the processes of linguistic quantity interpretation in modern English, we employ the cognitive approach that allows assessing the role of a person in both, comprehension of the quantitative characteristics of the world and formation of the quantitative meanings and senses in the language system. To provide an account of the issues under study we address the theories worked out within the framework of cognitive linguistics by Russian and foreign scholars: cognitive semantics, conceptualization, representation and linguistic interpretation.

*Key words:* conceptualization, interpretation, concept QUANTITY, basic properties, additional properties, cognitive mechanisms, linguistic mechanisms, linguistic factors.

For citation: Stepanenko, S. N., & Fedotova, O. V. Quantity interpretation in the English language. *Voprosy Kognitivnoy Lingvistiki*, *3*, 75-84.

#### DOI: 10.20916/1812-3228-2022-3-75-84

#### 1. Introduction

The current researches being conducted within the field of cognitive linguistic science are connected with the attempts to reveal the ontological essence of language as a means of communication and knowledge, as well as to deeper study the processes of accumulating knowledge about the surrounding world with the help of the language means. So, this approach matches the tendency to integratively analyze the processes of forming language meaning, as language is understood as a cognitive activity where a human factor is of a decisive importance. To put it differently, a person in his cognition plays an active role which is possible on the basis and with the help of the human language. This active role is manifested, on the one hand, in the formation of the language meanings and senses, and, on the other hand, in the choice of the language units and forms. This implies a significant impact of the language units and categories in the cognitive processes of conceptualization, categorization and interpretation.

Despite the widely acknowledged fact that knowledge about the world is individually specific, conceptualization and categorization as the main cognitive processes reveal common patterns, which are reflected in the language as the three systems of language categorization: lexical, grammatical and modus / interpretive ones [Boldyrev 2011].

While the conceptualization's strategic objective is connected with the accumulation of the collective knowledge about the outer world and / or possible worlds by the new conceptual characteristics of the entities being revealed, the main aim of interpretation, as a language cognitive operation or activity, is to gain the new secondary mainly individual knowledge, i.e. to reveal the subjective understanding of the object of interpretation.

Describing interpretation as both, the process and the result of a person's subjective understanding of the world and himself in this world; and the process and the result of the subjective representation of the world, N.N. Boldyrev highlights the idea that interpretation is based, on the one hand, on the already existing universal human ideas about the world and, on the other hand, on a person's individual experience of interaction with it [Boldyrev 2011: 12]. Considering this idea, the analysts of the language activity should bear in mind that its content is motivated by a person's individual cognitive experience, linguacultural knowledge, intentions, creative potential and other factors, directly influencing the process of the linguistic interpretation [Boldyrev, Fedyaeva 2020: 5].

The issues related to the study of the interrelations between the language and cognitive structures are also central to the study of the interpretation of quantity in modern English. QUANTITY is understood as an interpretive concept of the modus type as it implies a human's ability to interpret different objects and phenomena of the real world in terms of quantitative properties (see for example: [Fedyaeva 2020: 653]). The knowledge derived from such a comprehension of the quantitative aspects is represented in modern English by the multi-level language units and forms [Stepanenko, Perelygina 2020], which reflect the individual's perspective to the quantity evaluated.

The scientific problem of the present study is connected with the necessity and possibility to describe the peculiarities of the interpretation of the knowledge about the quantitative properties and aspects of the world by means of the analysis of the linguistic units' semantics at different levels in modern English. The relevance of the cognitive approach when studying the processes of the quantity linguistic interpretation is explained by its capability to evaluate the role of a person in both, the quantity comprehension and the quantitative senses and meanings forming.

In this paper, we focus on specifying the role and peculiarities of the language levels of quantity interpretation in modern English through identifying the language and cognitive mechanisms of quantity interpretation as well as the additional linguistic factors, participating in the quantity interpretation process.

The aim we pursue is to study and describe language units and forms engaged in quantity interpretation at the different levels in the modern English language.

The scientific novelty lies in the complex study of the ways and means of linguistic interpretation of quantity not only in the static aspect, but also in the dynamic one. The dual character of interpretation, according to N.N. Boldyrev, implies that in its static aspect it is characterized by the system of cognitive structures (concepts and categories) as its results; while its dynamic aspect is constituted by the processes of conceptualization and categorization by the language means [Boldyrev 2011: 12]. In our case, the result of interpretation (as the language cognitive activity) is the concept QUANTITY, formed in the process of lexical conceptualization of quantity and grammatical conceptualization of quantity in the modern English language [Stepanenko 2008].

Our hypothesis is that the process of the quantitative sense formation by means of the language units is integrative and multiple-factor at different language levels. As the process of quantity conceptualization has its own specification at each language level [Besedina, Stepanenko 2010], the process of quantity interpretation occurs also depending on: 1) the level peculiarities; 2) the language and cognitive mechanisms of quantity interpretation; 3) the additional linguistic factors, influencing this or that quantitative sense forming. This idea is grounded on the already obtained results of the researches, forming the methodological basis of the present study (see, for instance: [Babina 2017; Besedina 2014; 2015; 2017; 2020; Boldyrev 2017; Furs 2017; Panasenko 2015; 2017]).

To reach the aim set, we employ two methods of research, commonly used within the frame of cognitive linguistics: conceptual analysis [Kubryakova conceptual-representative 1992] and analysis [Besedina 2006]. The implementation of the first procedure, allows identifying the structure of knowledge, standing behind the language means representing it. It is directed at detecting and specifying the concept QUANTITY content by means of the analyses of both, the dictionary definitions and the real contextual meanings and senses, expressed by the language units, forms and categories representing the concept under the study. The turn to the conceptualrepresentative analysis, as a recently derived method of cognitive researches in linguistics, implying further development of the conceptual analysis method, is necessary to discover a concept's content and to identify the role of each language level in its representation [Besedina et. al. 2014]. So, the analysis is carried out in two directions: from the language content to conceptual one and vice versa.

The research basis is the language units of quantitative semantics in English.

## 2. Findings

When conducting this study, we consider a number of the scientific issues, defining the language specificity of interpretation as one of the cognitive activities; the most significant of which are summed up by N.N. Boldyrev (see, for instance: [Boldyrev 2011]). They are as follows:

1) being connected with cognition, which is recognized to be highly structured [Demyankov 1994], interpretation also turns out to be structured;

2) since interpretation is focused on the conceptual system of the individual, it is subjective;

3) as interpretation is connected with the collective experience, it is based on existing typical knowledge schemes (frames, scripts, cognitive models, etc.).

E.S. Kubryakova also notes the interconnection of the individual and collective experience, arguing that although the speaker's speech reflects an individual world view, it is refracted through collective information about the world, already reflected in the language [Kubryakova 2009].

In this connection, it seems logical to determine what concept QUANTITY as one of the typical knowledge schemes is.

2.1. QUANTITY as Conceptual System Entity

Conceiving and comprehending the surrounding reality in the life course, a person identifies certain features and characteristics of the objects and phenomena of the external world, the primary of which are their quantitative characteristics, which exist in an inseparable dialectical unity with qualitative ones.

The conditionality of quantity by the objective reality allows speaking of it as one of the most abstract categories of modern man's thinking (see, for instance: [Panfilov 1977: 160]), which already gets its consideration in the ancient logical and philosophical tradition, where it is generally interpreted, firstly, as an attribute, a universal property of the objects of the real material world and, secondly, as a category in the content of which the most general opposition of discrete (calculable) and continuous (measurable) quantity is clearly distinguished (see, for example: [Aristotle 1975; Descartes 1950; Hegel 1970]).

A person's idea of the quantitative aspect of being is formed in the course of understanding the objective differences of objects and phenomena of reality that are directly observable. Thus, the concept QUANTITY – an abstract concept, having no denotation that exists as a separate subject of objective reality – is formed in the human mind. This concept is a definite interpretive structure of knowledge, considered as a result of the process of quantitative differences between objects and phenomena of reality conceptualization.

The content of the concept QUANTITY is represented in modern English by a set of its properties.

Their degree of abstractness is different. Its most abstract and regular properties - discreteness and nondiscreteness - are regarded as basic [Stepanenko 2008]. The dynamic nature and flexible structure of the concept result in its content enrichment: the new conceptual properties, reflecting the objective and subjective quantitative features of objects and phenomena, appear there in the process of conceptualisation. These new, additional properties may also differ in the degree of abstractness, but, as a rule, they specify the basic properties in the content of QUANTITY, which gives reasoning to qualify them as particular [ibid]. The concept content's supplementation by the new conceptual properties leads to the enlargement of its volume, which reflects the human knowledge specificity. Consequently, the structure of the QUANTITY, as an operational unit of objectified knowledge about the quantitative characteristics of objects and phenomena of the objective world, is not rigid, and the mutual arrangement of its conceptual properties - basic and particular ones - does not have a strict sequence and is individual in nature, i.e. it

depends on the conditions of this concept forming. Taking into account the mentioned above generalities and bearing in mind that any concept exists 1) as a knowledge unit and 2) as a knowledge structure indexed in linguistic forms (verbalized concept), i.e. in two modes [Kubryakova, Demyankov 2007], further in the paper, we address some aspects of QUANTITY as a knowledge structure to make an attempt to demonstrate its interpretative character.

## 2.2. Interpretative Potential of QUANTITY

As it is already known, 1) a person does not reflect the world in language directly, but constructs it in his consciousness with the help of and by means of the language [Boldyrev 2015c: 35; 2015d: 6; 2016: 10], and 2) the language does not refer to the objects of the external world, but to the concepts in the speaker's mind [Evans, Green 2006: 158], so it is possible to conclude that language, being one of the human cognitive abilities, provides the input of data about the objective world quantitative characteristics into the human's conceptual system. It also helps to sum up all the information of a "quantitative" character, coming in through the other – non-language – channels. To put it differently, the language provides an access to the concept QUANTITY, regardless of the way it is formed, simultaneously being only one of the ways of its formation in the human's consciousness.

QUANTITY is widely represented in the English language system, both, at the lexical and grammatical levels. This gives the foundation to refer it to the basic, universal, fundamental concepts of the conceptual system. The idea of the conceptual system heterogeneity, i.e. the presence of the more significant areas in it – fundamental concepts – is quite justified in the cognitive-oriented theories of language (see: [Lakoff 1987; Jackendoff 1996; Talmy 2001; Kubryakova 2004]). The existence of a system of the diverse language means of the concept QUANTITY representation confirms its significance both, for the conceptual system and for the conceptual space of the language forming. According to E.S. Kubryakova, the more significant a certain concept is for the human cognition, the more complex is the system of language means and forms it can be expressed with [Kubryakova 2004: 313].

The quantitative diversity of the world, represented by a wide range of language means, determines a significant interpretive potential of the concept QUANTITY. In other words, the interpretive nature of this concept turns out to be determined by its anthropocentric nature and its intra-language status.

Taking into account that linguistic interpretation as cognitive activity, from the point of view of N.N. Boldyrev, can be conditionally represented as 1) interpretation of the world, or primary interpretation, and 2) interpretation of knowledge about the world in the language, or secondary interpretation [Boldyrev 2017], we note that QUANTITY as an interpretive format of knowledge is responsible not only for explaining the variety of quantitative properties of reality, i.e. the primary interpretation, the results of which are recorded mainly in lexical categories, but also the secondary interpretation, the result of which is new knowledge about the world formed in the processes of secondary conceptualization and categorization [Boldyrev 2017: 29].

The latter is also supported by the variability of the language representation of the concept QUANTI-TY at all levels in the English language, which gives reason to consider the linguistic interpretation of quantity in each particular case as its lexical and grammatical interpretation, of both types: primary and secondary. In this paper the primary interpretation of quantity is in the focus of our attention.

2.3. Lexical Primary Interpretation of Quantity

Lexis is known to be connected with the objective world, social and historical experience, cultural and national peculiarities of a person directly; so it reflects a naive picture of the world, i.e. natural rubrication of the experience [Panasenko 2015]; knowledge of the particular objects, phenomena, their characteristics and categories, i.e. ontology of the world and results of its cognition [Boldyrev 2007: 99]. Thuswise, the ontological foundation of the lexical categories turns out to be the motivational basis their interpretative for potential [Panasenko 2017: 218].

As the results of interpretation are knowledge structures, represented by the interpretation modi: rational, emotive, and axiological [Panasenko 2017: 224], the ontological content of the concept QUAN-TITY is represented by the rational modus of interpretation that has logical or sensuous foundation, i.e. it is formed on the basis of the physical feelings reasoning and comprehension. Consequently, the specificity of the quantity interpretation at the lexical level is determined by the fact that a person comprehends quantitative characteristics in the process of observing the surrounding world in its individual objects and notions. The language process of the lexical quantity interpretation is connected with the formation of the individual, subjective ideas about the quantitative characteristics of the world. This is initially a primary interpretation, based on the interpretative character of primary conceptualization of the world.

The quantitative characteristics of the objects are those having the quantitative measures of calculation, such as number of objects, measures of space (length, width, height, volume) and physical parameters (growth, weight, age), etc. Quantitative lexicon reflects a certain part of the world view, and conceptualization of quantity at this level of language is connected with a person's ability to distinguish this or that actual at the moment quantitative characteristic of an object or a phenomenon of reality.

Quantitative characteristics of objects include ones having quantitative calculation measures: the number of objects, numerical characteristics of measuring space (length, width, height, volume), numerical characteristics of measuring physical parameters (height, weight, age), etc. Quantitative vocabulary reflects a certain part of the world view, and the interpretation of quantity at this level of the language is related to a person's ability to distinguish and to individually construe a certain quantitative characteristic of an object or phenomenon of reality that is actual and relevant at the moment.

It is known that the general conceptual content of quantity as a way of the quantitative parameters of the objects, events and their characteristics interpretation is realized in language in the form of the specific quantitative senses that are formed due to the linguistic mechanisms. The above noted specificity of lexical primary interpretation of quantity allows considering the language nominations of quantity and quantitative characteristics of various objects, qualities and events as a linguistic mechanism of quantity interpretation; these nominations turn out to be represented by lexical units of various parts of speech, revealing quantitative semantics.

To describe the features of the lexical interpretation of quantity, it is necessary to identify cognitive mechanisms of the quantitative sense forming. N.N. Boldyrev and E.V. Fedyaeva note that the study of the language representations of quantity, makes it obvious that they are often the result of the simultaneous action of several cognitive mechanisms, the result of the cognitive mechanisms integration [Boldyrev, Fedyaeva 2020: 6]. Among various cognitive mechanisms of the quantitative sense formation at the different levels of language - bounding (a cognitive process of mental boundaries setting), reification (a cognitive process allowing operating nonsubject entity as if it is a subject due to reconsideration), analogy (a cognitive process of two phenomena likening), profiling (a cognitive process of distinguishing the main and secondary), focusing (a cognitive process of some components of the cognitive context highlighting (regardless of their importance), abstracting (a cognitive process of distraction from characteristics and connections of the objects), comparison, conceptual metaphor, etc. (see: [Boldyrev, Fedyaeva 2020]) - the cognitive mechanisms of the lexical quantity interpretation of the primary level are in most cases profiling and focusing.

There are linguistic factors, which are rather important in the process of the lexical interpretation of quantity in modern English as they add to the concretization of the generalized quantitative meanings and senses. They are factors, realized in the sentenceutterance: the quantitative semantics of the lexical units, involved in the process of interpretation, i.e. the semantic factor; and the context as a complex of the sentence-utterance elements, creating conditions for these or those quantitative senses formed, i.e. the contextual factor.

Further, we are going to demonstrate the process of quantity interpretation at the level of lexis practically.

Lexical means of quantity interpretation in modern English are numerous and include units of quantitative semantics: nouns, adjectives, verbs, pronouns and adverbs. Here, we attempt to show the principles of analysing language means involved in the process of lexical interpretation of quantity on the example of adjectives.

Adjectives of modern English, in the semantics of which quantitative meaning is embedded, can be

divided into three groups: 1) adjectives denoting exact number of the object attributes, such as *double*, *dual, triple, treble, decimal, etc.*; 2) adjectives, denoting non-exact number of the object attributes, such as *numeric, innumerable, countless, incalculable, etc.*; 3) adjectives, denoting parametric object attributes, such as *large, small, short, long, huge, enormous, great, etc.* 

Adjectives of the first group by virtue of their semantics, determined on the basis of the definitional analysis (e.g., double – twice as much / many; having or made of two things or parts that are equal or similar; made for two people or things; combining two things qualities or [https://www.oxfordlearnersdictionaries.com/]; triple - having three parts of the same type, or happening three times [https://dictionary.cambridge.org]), allow interpreting the quantitative characteristics of the surrounding world object as exact quantity. This understanding is based on the basic property "discreteness", profiled in the content of the concept QUAN-TITY.

Under the contextual factor, influencing quantitative sense formation within the sentence-utterance, the adjectives of this group express more nuanced, specified quantitative senses: "the exact number of the being determined object's components", "the quantitatively exact qualitative variety" and "the exact degree of condition", etc.

The sense "the exact number of the being determined object's components" is formed when the contextual factor assumes the use of an adjective of this group in the function of an attribute to a noun of the subject semantics. For example, *Without breaking stride, the man pointed to a set of double doors and disappeared around the corner* (Brown D. Digital Fortress); One never saw a double <u>bed</u> nowadays, except in the homes of the proles (Orwell G. 1984); 'A triple <u>murder</u> in a Moscow amusement center: three corpses found frozen in the snow, faces and fingers missing.' (Smith M.C. Gorky Park).

In the examples given, the attribute adjectives (in bold) indicate that the objects denoted by the nouns of the subject semantics (underlined) consist of an exact number of identical parts (2), are intended for use by an exact number of people (2), an exact number of constituent elements (3), respectively.

In these cases the basis for the quantitative sense formation is the additional conceptual property "summedness", which focuses in the content of the concept QUANTITY simultaneously with the basic property "discreteness", which allows interpreting the quantity as exact. The group of adjectives, represented by the lexical units like *numerous, innumerable, incalculable, countless*, etc., on the contrary, due to their semantics (e.g. *numerous – existing in large numbers* [https://www.oxfordlearnersdictionaries.com/]; *innumerable – too many to be counted; very many* [ibid]; *countless – very many; too many to be counted or mentioned things or qualities* [ibid]), allow interpreting the quantitative characteristics of the surrounding world object as non-exact quantity. Such interpretation is possible due to profiling of the basic property "discreteness" and focusing of the additional property "indefiniteness" in the content of the concept QUANTITY.

Under the contextual factor of the quantitative sense formation the adjectives of this group express a number of more specified quantitative senses. For example, the sense "very many objects" is formed when the contextual factor, is realized as attributes to the nouns, denoting an animate object or an inanimate one. For example, *At length we saw the numerous* <u>steeples</u> of London, St. Paul's towering above all, and the Tower famed in English history (Shelley M.W. Frankenstein); She spoke of her father tramping the **countless** <u>streets</u> day after unsuccessful day looking for work (Blair E. The Princess of Poor Street); Look also at the innumerable <u>fish</u> that are swimming in the clear waters (Shelley M.W. Frankenstein).

These examples illustrate that combinations of the adjectives in bold with the nouns denoting inanimate (*steeples, streets*) and animate (*fish*) objects convey the idea of the non-exact quantity, with the colour "very many". The basis for the formation of this sense is the basic conceptual property "discreteness", which in this case is of the non-exact character. The additional property "summedness" focuses on its background.

# 2.4. Grammatical Primary Interpretation of Ouantity

The specificity of quantity interpretation by grammar means is determined by the specificity of its conceptualization on the level of grammar. The latter is concerned with the fact that in grammar the most essential part of the conceptual information of different complexity levels, the most significant quantitative values (from the language perspective) are recorded. Language captures the most regular and less factor-affected characteristics of the external world in its grammatical categories, and they are expressed in the language with a greater obligation and regularity degree. In other words, grammatical categories determine how knowledge about the actual world is schematized in accordance with the rules and principles of verbal communication [Boldyrev 2015a: 40]. Grammatical primary interpretation of quantity is mainly realized at the sublevel of morphology. Morphological categories and forms are characterized as having a significant interpretative potential [Besedina 2013; 2017]. Their interpretive function is structured in a certain way, and is based on the cognitive knowledge schemes of the conventional nature and language models, corresponding to them. The interpretive function of morphology is manifested in the interpretative potential of the concepts, morphologically represented [Besedina 2017: 316]. QUANTITY is one of the concepts represented morphologically.

At the level of morphology the primary interpretation of quantity is carried out through the forms of the number of nouns and degrees of comparison of adjectives and adverbs (both realizing the dynamic aspect of interpretation), involved in the conceptualization of quantity, and, consequently, in the interpretation of knowledge about the quantitative aspects of reality in the language. These morphological forms participate in the conceptual content structuring (in our case, in the concept QUANTITY content), organizing the framework of those forms into which the content transmitted lexically is "poured" [Besedina 2017: 315]. With the help of the morphological forms mentioned above, a systematic linguistic processing of knowledge about the world (in our case, about the quantitative characteristics of reality) is carried out. The knowledge obtained is not a direct reflection of the world, as it assumes a purposeful and conscious linguistic knowledge forming, which is carried out at the conceptual understanding level [ibid].

Morphological interpretation of quantity is carried out at the level of lexico-grammatical word classes' semantics. The cognitive mechanisms, which serve the process of quantity interpretation at the level of morphology, are abstracting and profiling. The basic properties "discreteness" and "nondiscreteness" in the content of the concept QUANTI-TY are actualized by means of abstracting, while the additional ones (simultaneously activated under the particular linguistic factors) – by means of profiling.

The most productive linguistic factors influencing the process of quantitative meaning and sense formation at the level of morphology are semantic and contextual ones. Morphological interpretation of quantity can be also realized under the influence of the syntactic factor, determined by the sentenceutterance structure.

Further, we are going to demonstrate the peculiarities of the morphological quantity interpretation of the primary type by means of the real context analyses, where the singular form of nouns acts as the linguistic mechanism of the quantitative meaning and sense forming.

The singular form of nouns acts as a linguistic mechanism of the formation of the lexicogrammatical quantitative senses such as "collective plurality (segmented and unsegmented)", "substance plurality-continuum", "portion of substance", "abstract plurality-continuum" "singular congeries" and "concrete singularity". The basis for the formation of the senses "segmented collective plurality" and "portion of substance" is created by the basic conceptual property "discreteness", which is of the non-exact character in these cases. The mainstay for the formation of the senses "unsegmented collective plurality", "substance plurality-continuum", "abstract plurality-continuum", "singular congeries" and "concrete singularity" is the basic conceptual property "nondiscreteness".

The lexico-grammatical quantitative sense "substance plurality-continuum", for instance, is formed by the singular form of nouns under the influence of such linguistic factor as semantic. The latter assumes the use of the substance semantics nouns like *sugar*, *salt*, *milk*, *water*, *coffee*, *tea*, *wine*, *oil*, etc. in the singular form. The peculiarity of this quantitative sense is that the volume of the entire set is interpreted as a unit, which cannot change when one or more members of the plurality are added or removed. For example, *There was enough whisky*, *gin and beer to sink a battleship*, *plus oodles of crisps*, *sausage rolls and fancy cakes* (Robbins H. Descent from Xanadu).

The interpretation of a substance as a portion is possible when the nouns of the group under consideration are used in combinations with the indefinite adjectives such as *some*, *much*, *a little*, and expressions like *a lot of*, *a little of*, *a great (good) deal of*, *a large (small) amount of*. For example, .... *and if we want <u>a little</u> whisky we can sell a few eggs or something, or <u>some</u> milk (Steinbeck J. Of Mice and Men). The amount of substance in this case is interpreted as non-exact, indefinite. The formation of this quantitative sense is based on the additional conceptual property "indefiniteness", profiling in the content of the concept QUANTITY simultaneously with the basic property "non-discreteness" due to the contextual linguistic factor.* 

The unit to which the volume of a given plurality is equated can be divided into parts; the parts obtained possess the same qualitative definiteness as the unit itself. These parts are interpreted as quantitatively definite when the contextual linguistic factors is actual: when it is realized by means of combinations formed according to the model  $N_1$  of  $N_2$ , where  $N_1$  is a noun, denoting some container, and  $N_2$  is a noun of the substance semantics. For example, *There was <u>a</u> <u>bowl of</u> sugar out...* (Blair E. The Princess of Poor Street); *I stirred it listlessly, adding a few herbs and <u>a</u> <u>pinch of</u> salt (Wilde J. Love Me, Marietta). The given examples illustrate that independent physical bodies containing a single dose of a substance are used to measure the amount of such substances. As a result, this amount of substance is interpreted as a portion.* 

The interpretation of a substance as a portion is also provided under the influence of the contextual factor realized in the use of the indefinite article (e.g. *Ken sat holding <u>a</u> large whisky, watching Lyn nurse wee Kenny* (Blair E. The Princess of Poor Street)) or possessive pronouns (e.g. *Nicky would drink <u>his</u> Coke and go over his strategy books* (Johnson J. The Children's Wing)) in combination with a noun of substance semantics in the singular form.

The quantitative sense "portion of substance" formation is based on the additional conceptual property "portionality", which is profiled in the background of the basic conceptual property "discreteness".

To recapitulate the issues touched upon in this paragraph, we note that the lexico-grammatical quantitative senses "collective plurality (segmented and unsegmented)", "substance plurality-continuum", "abstract plurality-continuum", formed by the singular form of nouns of various lexico-semantic groups, specify the quantitative meaning "plurality" which is highly generalized. Lexico-grammatical quantitative senses "singular congeries" and "concrete singularity" and "portion of substance", specify the generalized meaning "singularity". The formation of the listed senses of the clarifying nature occurs within the framework of the sentence-utterance under the influence of the additional linguistic factors: semantic (playing the leading role) and contextual ones.

#### 3. Conclusion

Thus, in this article we have presented a cognitive overview of linguistic interpretation of quantity at different levels in modern English. The language means of different levels perform their own specific functions in the process of quantity interpretation, not duplicating each other. That is why quantity interpretation is peculiar at each language level. Being two main subsystems of language, lexis and grammar structure conceptual content differently: lexis provides its transfer, while grammar provides the organization of a framework of forms in which this content pours out, the process of quantity interpretation turns out to have its own character and leads to different results in cases of lexical and grammatical interpretation.

The findings of our research reveal key-aspects regarding the linguistic interpretation of quantity. In our approach, we have laid special emphasis on the fact that quantity is an entity of a conceptual character, turned to the units of ontological order, on the one hand, and to a language system, on the other hand. The quantity presented in language appears to have undergone the human perception, i.e. this is the quantity conceptualized and interpreted by means of a certain language – English in our case. We have shown that the process of quantitative sense formation at different language levels is complex and involves many factors, which should be taken into account to understand the essence of the interpretative potential of quantity.

## References

*Аристотель*. Сочинения: в 4 т. Т.1. Метафизика. М.: Мысль, 1975. [Aristotel'. Sochineniya: v 4 t. T.1. Metafizika. M.: Mysl', 1975.]

Бабина Л.В. Интерпретирующий потенциал производных слов // Интерпретация мира в языке. Тамбов: ИД ТГУ им. Г.Р. Державина, 2017. С. 287-310. [Babina L.V. Interpretiruyushchiy potentsial proizvodnykh slov // Interpretatsiya mira v yazyke. Tambov: ID TGU im. G.R. Derzhavina, 2017. S. 287-310.]

*Беседина Н.А.* Морфологически передаваемые концепты. М; Тамбов; Белгород: ТГУ им. Г.Р. Державина, 2006. [Besedina N.A. Morfologicheski peredavaemye kontsepty. M; Tambov; Belgorod: TGU im. G.R. Derzhavina, 2006.]

Беседина Н.А. Интерпретационный потенциал морфологии: факторы и механизмы // Когнитивные исследования языка. 2013. № 15. С. 47-52. [Besedina N.A. Interpretatsionnyy potentsial morfologii: faktory i mekhanizmy // Kognitivnye issledovaniya yazyka. 2013. № 15. С. 47-52.]

Беседина Н.А. Когнитивное варьирование как основа взаимодействия лексики и грамматики в языке // Когнитивные исследования языка. 2014. № 9. С. 154-160. [Besedina N.A. Kognitivnoe var'i-rovanie kak osnova vzaimodeystviya leksiki i grammatiki v yazyke // Kognitivnye issledovaniya yazyka. 2014. № 9. С. 154-160.]

Беседина Н.А. Морфологические категории в аспекте языковой интерпретации // Интерпретация мира в языке. Тамбов: ИД ТГУ им. Г.Р. Державина, 2017. С. 311-327. [Besedina N.A. Morfologicheskie kategorii v aspekte yazykovoy interpretatsii // Interpretatsiya mira v yazyke. Tambov: ID TGU im. G.R. Derzhavina, 2017. S. 311-327.]

Беседина Н.А., Степаненко С.Н. Концептуализация количества в современном английском языке // Вопросы когнитивной лингвистики. 2010. № 4. С. 20-29. [Besedina N.A., Stepanenko S.N. Kontseptualizatsiya kolichestva v sovremennom angliyskom yazyke // Voprosy kognitivnoy lingvistiki. 2010. № 4. S. 20-29.]

Болдырев Н.Н. Концептуальное пространство когнитивной лингвистики // Вопросы когнитивной лингвистики. 2004. № 1. С. 18-36. [Boldyrev N.N. Kontseptual'noe prostranstvo kognitivnoy lingvistiki // Voprosy kognitivnoy lingvistiki. 2004. № 1. S. 18-36.]

Болдырев Н.Н. Проблемы исследования языкового знания // Концептуальный анализ языка: современные направления исследования. М.; Калуга: Ейдос, 2007. С. 95-108. [Boldyrev N.N. Problemy issledovaniya yazykovogo znaniya // Kontseptual'nyy analiz yazyka: sovremennye napravleniya issledovaniya. М.; Kaluga: Eydos, 2007. S. 95-108.]

Болдырев Н.Н. Интерпретирующая функция языка // Вестник Челябинского государственного университета. 2011. № 33 (248). Филология. Искусствоведение. Вып. 60. С. 11-16. [Boldyrev N.N. Interpretiruyushchaya funktsiya yazyka // Vestnik Chelyabinskogo gosudarstvennogo universiteta. 2011. № 33 (248). Filologiya. Iskusstvovedenie. Vyp. 60. S. 11-16.].

Болдырев Н.Н. Когнитивный подход к исследованию антропоцентрической природы языка // Когнитивные исследования языка. 2015а. № 21. С. 38-45. [Boldyrev N.N. Kognitivnyj podhod k issledovaniju antropocentricheskoj prirody jazyka // Kognitivnye issledovanija jazyka. 2015а. № 21. S. 38-45.]

Болдырев Н.Н. Принцип антропоцентризма в языковом конструировании пространства // Когнитивные исследования языка. 2015b. № 23. С. 30-39. [Boldyrev N.N. Princip antropocentrizma v jazykovom konstruiro-vanii prostranstva // Kognitivnye issledovanija jazyka. 2015b. № 23. S. 30-39.]

Болдырев Н.Н. Роль языка в структурировании сознания // Когнитивные исследования языка. 2015с. № 35. С. 34-39. [Boldyrev N.N. Rol' jazyka v strukturirovanii soznanija // Kognitivnye issledovanija jazyka. 2015с. № 35. S. 34-39.].

*Болдырев Н.Н.* Антропоцентрическая сущность языка в его функциях, единицах и категориях

// Вопросы когнитивной лингвистики. 2015d. № 1. C. 5-12. [Boldyrev N.N. Antropocentricheskaja sushhnost' jazyka v ego funkcijah, edinicah i kategorijah // Voprosy kognitivnoj lingvistiki. 2015d. № 1. S. 5-12.]

Болдырев Н.Н. Когнитивные схемы языковой интерпретации // Вопросы когнитивной лингвистики. 2016. № 4. С. 10-20. [Boldyrev N.N. Kognitivnye shemy jazykovoj interpretacii // Voprosy kognitivnoj lingvistiki. 2016. № 4. S. 10-20.]

Болдырев Н.Н. Язык как интерпретирующий фактор познания // Интерпретация мира в языке. Тамбов: ИД ТГУ им. Г.Р. Державина, 2017. С. 19-81. [Boldyrev N.N. Jazyk kak interpretirujushhij faktor poznanija // Interpretacija mira v jazyke. Tambov: ID TGU im. G.R. Derzhavina, 2017. S. 19-81.]

Болдырев Н.Н., Федяева Е.В. Когнитивные механизмы формирования количественных смыслов в языке // Вопросы когнитивной лингвистики. 2020 № 3. С. 5-14. [Boldyrev N.N., Fedjaeva E.V. Kognitivnye mehanizmy formirovanija kolichestvennyh smyslov v jazyke // Voprosy kognitivnoj lingvistiki. 2020 № 3. S. 5-14.]

*Гегель Г.В.Ф.* Наука логики: в 3 т. Т.1. Учение о бытии. М.: Мысль, 1970. [Gegel' G.V.F. Nauka logiki: v 3 t. T.1. Uchenie o bytii. M.: Mysl', 1970.]

Декарт Р. Избранные произведения. М.: Госполитиздат, 1950. [Dekart R. Izbrannye proizvedenija. M.: Gospolitizdat, 1950.]

Демьянков В.З. Когнитивная лингвистика как разновидность интерпретирующего подхода // Вопросы языкознания. 1994. № 4. С. 17-33. [Dem'jankov V.Z. Kognitivnaja lingvistika kak raznovidnosť interpretirujushhego podhoda // Voprosy jazykoznanija. 1994. № 4. S. 17-33.]

Кубрякова Е.С. Проблемы представления знаний в современной науке и роль лингвистики в решении этих проблем // Язык и структуры представления знаний. М.: ИНИОН РАН, 1992. С. 4-38. [Kubrjakova E.S. Problemy predstavlenija znanij v sovremennoj nauke i rol' lingvistiki v reshenii jetih problem // Jazyk i struktury predstavlenija znanij. M.: INION RAN, 1992. S. 4-38.]

Кубрякова Е.С. Язык и знание: На пути получения знаний о языке: части речи с когнитивной точки зрения. Роль языка в познании мира. М.: Языки славянской культуры, 2004. [Kubrjakova E.S. Jazyk i znanie: Na puti poluchenija znanij o jazyke: chasti rechi s kognitivnoj tochki zrenija. Rol' jazyka v poznanii mira. M.: Jazyki slavjanskoj kul'tury, 2004.]

Кубрякова Е.С. В поисках сущности языка // Вопросы когнитивной лингвистики. 2009. № 1. С. 5-12. [Kubrjakova E.S. V poiskah sushhnosti jazyka // Voprosy kognitivnoj lingvistiki. 2009. № 1. S. 5-12.] Кубрякова Е.С., Демянков В.З. К проблеме ментальных репрезентаций // Вопросы когнитивной лингвистики. 2007. № 4. С. 8-16. [Kubrjakova E.S., Demjankov V.Z. K probleme mental'nyh reprezentacij // Voprosy kognitivnoj lingvistiki. 2007. № 4. S. 8-16.]

Панасенко Л.А. Субкатегориальная организация лексической категории как ее интерпретирующий потенциал (на материале английского языка) // Когнитивные исследования языка. 2015. № 21. С. 102-106. [Panasenko L.A. Subkategorial'naja organizacija leksicheskoj kategorii kak ee interpretirujushhij potencial (na materiale anglijskogo jazyka) // Kognitivnye issledovanija jazyka. 2015. № 21. S. 102-106.]

Панасенко Л.А. Когнитивные основания интерпретирующего потенциала лексических категорий // Интерпретация мира в языке. Тамбов: ИД ТГУ им. Г.Р. Державина, 2017. С. 218-243. [Panasenko L.A. Kognitivnye osnovanija interpretirujushhego potenciala leksicheskih kategorij // Interpretacija mira v jazyke. Tambov: ID TGU im. G.R. Derzhavina, 2017. S. 218-243.]

Панфилов В.З. Философские проблемы языкознания. Гносеологические аспекты. М.: Наука, 1977. [Panfilov V.Z. Filosofskie problemy jazykoznanija. Gnoseologicheskie aspekty. М.: Nauka, 1977.].

Степаненко С.Н. Средства концептуализации количества в современном английском языке: дис. ... канд. филол. наук. Белгород, 2008. [Stepanenko S.N. Sredstva konceptualizacii kolichestva v sovremennom anglijskom jazyke: dis. ... kand. filol. nauk. Belgorod, 2008.]

Фурс Л.А. Интерпретация мира в синтаксисе // Интерпретация мира в языке. Тамбов: ИД ТГУ им. Г.Р. Державина, 2017. С. 328-351. [Furs L.A. Interpretacija mira v sintaksise // Interpretacija mira v jazyke. Tambov: ID TGU im. G.R. Derzhavina, 2017. S. 328-351.]

*Besedina N.A.* Interpretation and Morphology: A Cognitive Perspective // Proceedings of the Philological Readings (PHR 2019). Orenburg State University; London, United Kingdom: EPSBS European Proceedings of Social and Behavioural Sciences. 2020. P. 20-28.

Besedina N.A., Stepanenko S.N., Fedotova O.V., Sherstyokova E.V. Morphology of Number in English: a Cognitive Perspective // Journal of Language and Literature. 2014. № 5(3). P. 83-88.

Besedina N.A., Shemaeva E.V., Borisovskaya I.V., Zimovets N.V. Grammar and Interpretation //

Journal of Language and Literature. 2015. № 6(2). P. 165-167.

*Blair E.* The Princess of Poor Street. London: Michael Joseph Ltd, 1986.

*Brown D.* Digital Fortress. URL: https://royallib.com/read/Brown\_Dan/Digital\_Fortres s.html#0

*Cambridge Dictionary Online*. URL: https://dictionary.cambridge.org

*Evans V., Green, M.* Cognitive Linguistics: An introduction. Edinburgh: Edinburgh University Press, 2006.

*Fedyaeva E.V.* Image-Related Format of Knowledge about Quantity as a Quality Interpretation Tool // Proceedings of the Philological Readings (PHR 2019). Orenburg State University; London, United Kingdom: EPSBS European Proceedings of Social and Behavioural Sciences. 2020. P. 652-659.

*Jackendoff R.* Conceptual Semantics and Cognitive Semantics // Cognitive Linguistics. 1996. №7. P. 93-129.

Johnson J. The Children's Wing // American Story. M.: Manager, 1996. P. 90-102.

*Lakoff G.* Women, Fire, and Dangerous Things. What Categories Reveal about the Mind. Chicago, London: The University of Chicago Press, 1987.

*Orwell G.* 1984. URL: https://www.planetebook.com/free-ebooks/1984.pdf

Oxford Learner's Dictionaries Online. URL: https://www.oxfordlearnersdictionaries.com/

*Robbins H.* Descent from Xanadu. N.Y.: Pocket Books, 1985.

*Shelley M.W.* Frankenstein. URL: http://www.literaturepage.com/read/frankenstein.html

*Smith M.C.* Gorky Park. N.Y.: Ballantine Books, 1982.

*Steinbeck J.* Of Mice and Men. URL: https://genius.com/John-steinbeck-of-mice-and-men-chapter-4.

Stepanenko S.N., Perelygina T.A. Multi-Level Conceptualization of Quantity in Modern English // Proceedings of the Philological Readings (PHR 2019). Orenburg State University; London, United Kingdom: EPSBS European Proceedings of Social and Behavioural Sciences. 2020. P. 660-671.

*Talmy L.* Toward a Cognitive Semantics. Vol. 2. Typology and Process in Concept Structuring. Cambridge, London: The MIT Press, 2001.

*Wilde J.* Love Me, Marietta. London: Division of Macdonald and Co Ltd. 1982.

# ИНТЕРПРЕТАЦИЯ КОЛИЧЕСТВА В АНГЛИЙСКОМ ЯЗЫКЕ

## С.Н. Степаненко, О.В. Федотова

Белгородский государственный национальный исследовательский университет (Белгород, Россия) sstepanenko@bsu.edu.ru; fedotova@bsu.edu.ru

В настоящей статье рассматриваются вопросы, касающиеся роли языка в процессе интерпретации количества. Работа выполнена на материале английского языка. Авторы предпринимают попытку описать языковые средства, задействованные в интерпретации количества на разных языковых уровнях системы языка, с целью продемонстрировать уровневые особенности интерпретации количества в каждом конкретном случае. Чтобы доказать интегративность и полифакторность процесса интерпретации количества на разных языковых уровнях, осуществляется анализ количественных значений и смыслов, выражаемых лексическими и грамматическими (морфологическими) языковыми единицами количественной семантики. Также получают рассмотрение когнитивные и языковые механизмы интерпретации количества, и определяется роль дополнительных лингвистических факторов в формировании количественных смыслов.

Исследование выполнено на основе теорий когнитивной семантики, концептуализации, репрезентации и языковой интерпретации, разработанных в рамках когнитивного подхода, позволяющего оценить роль человека как в понимании количественных характеристик мира, так и в формировании количественных значений и смыслов в языковой системе.

**Ключевые слова:** концептуализация, интерпретация, концепт QUANTITY, базовые характеристики, дополнительные характеристики, когнитивные механизмы, языковые механизмы, лингвистические факторы.

Для цитирования: Stepanenko S.N., Fedotova, O.V. Quantity interpretation in the English language // Вопросы когнитивной лингвистики. 2022. № 3. С. 75-84.