

# The Functioning of Numerals in the Composition of Evidential Semantics Statements of English Language<sup>1</sup>

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## Abstract

This article is dedicated to the numerals that function as a part of evidential semantics. The numeral expresses the abstract mathematical concept of a number in the objective function. In the attribute function, the numeral denotes the quantitative attribute of the subject. The main feature of numerals is that they are like nouns perform the function of subject, complement, nominal part of the predicate and as the determiners actualize a noun. The main aim of the article is to show that the representation of the category of perception by quantitative numerals is limited by the capacity of perceptual space – the possibility of simultaneous observation of a limited number. Perceptual space is identical to the concept of the deictic field, which is defined by the temporal, spatial and personal parameters *now, here, I = the perceiver*. The main differences in perceptual space are in the interpretation of the subjective element, i.e. finding the status of the perceptor by the narrator, in its spatial-temporal concreteness, deterministic extralinguistic limitation of visibility in a specific time interval.

**Keywords:** Language; Linguistics; Grammar; Numerals; Quantification.

## 1. Introduction

In the objective function, the numeral expresses the abstract mathematical concept of a number. In the attribute function, the numeral denotes the quantitative attribute of the subject. From a syntactic point of view, a numeral appears as a valence word (syntactic predicate / attribute in a broad sense). From a semantic point of view, it appears as a carrier of semantic valence (semantic predicate / attribute in a broad sense). In terms of utterance, the indicative use of the numeral is divided into nexus (predicative) and junk (attributive in the narrow sense). In the case of a nexus use, a predicative attribute is assigned to a certain set in the form of a quantitative characteristic: *There were seven children*. In case of junk use, the quantitative characteristic is expressed along the way, in passing, an attribute feature is supplied:

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*five chairs were repaired* (Krylov, 2004). R.A. Huseynova notes that cardinal numbers express a specific singularity or multiplicity, and ordinal numbers not only singularity, but also the order of counting (Guseynova, 2006). Mubarakshina A. writes that “numerals acquire specific content depending on the context or situation” (Mubarakshina et al., 2016; Taubaye et al., 2018).

## 2. Methods

When writing this article we summarized the results of studies in the field of linguistics, we adhered to the typological studies in the field of evidentiality developed by Aikhenvald (2004) and Abdrakhmanova (Abdrakhmanova & Mubarakshina, 2017), and category of number (Polikarpova, 2007) and used the following set of methods: theoretical (reviewing and analyzing of the academic literature on the topic of research, system analysis of the phenomena under study); distributional, component, mental-logical analysis and descriptive method, presupposing compilation and classification of the analyzed material.

## 3. Results

*In the English language when representing the category of perception*, the combination of the verb *to see* with the perceived subject marked with the number *three* is less common 20%. In the sample of examples, the verb *to see* functions in the constructions of Complex Object (1) - (16) with infinitive - 5 examples (1, 3, 8, 9, 14, 16) with Participle I – 9. Numeral *two* is the most frequent 60%. The greater the quantitative indicator of the numeral, the less it is active in the quantification of the perceived situation. The range of visual perception correlates with quantitative information. The role of numerals as deictic characters is realized within the framework of perceptual space. If there is an increase in the value of the quantity *many hundreds of users*, then the deictiveness of perceptual space is lost. In example (17), the observation period is expressed *in this same period* (17). Numbers in the perceived part for the quantitative specification of perceptors are not often found - on average, 10%. There is a 1.5-fold quantitative advantage of examples with numerals in the statements of the Past tense. Perceptor quantification is extremely rare 10% (18) - (19) (Table 1).

Specific quantification correlates with the quantitative capacity of the perceptual space — the ability to observe a limited number of substances (Makhmutova, 2017). Otherwise, an abstraction of the value occurs because of the reduction of unacceptable for a specific one-time situation of observation of large-scale quantitative indicators, for example, *I see hundreds / thousands of injured people*. This is a literary technique of deliberately increasing the quantity for expression - hyperbole. Entering large-scale quantitative indicators leads to the expression of distribution in time: *I have seen thousands of wounded people* (every

day, at different times). In any case, an increase in the quantification index of a perceptual situation leads to deprivation of its specificity, i.e. the transition to abstract thinking *saw many hundreds of beggars* (17). (Table 1)

Table 1. *Numbers in English*

Perceptor expressed	Quantification of observed subjects			
	two 18%	three 6%	four 0%	five 0%
by pronoun we see / saw				
verb in Present Simple we see	1 (1)	2 (9)	0	0
verb in Past Simple we saw	9 (2) (3)	3 (4)	0	1
by pronoun they see /saw				
verb in Present Simple they see	1 (5)	0	0	0
verb in Past Simple they saw	3 (6)	3 (7), (8)	0	0
any preceptor	two 60%	three 20%	four 10%	five 10%
Present Simple see (number of examples)	80	33	12 (10) (11)	14 (12)
Past Simple saw (number of examples)	128	50	11 (13) (14)	10 (15) (16)

Examples:

1. Suddenly *we saw two women* exchange a look as they passed us. (<https://books.google.com>);
2. *We see two perspectives* which lead to two patterns of living (<https://books.google.com>);
3. She *saw three streaks* of light which to her appeared like lightning (<https://books.google.com>);
4. *We saw two men* go off, about 10 o'clock the night before, with a skiff, but supposed it belonged to them (<https://books.google.com>);
5. *They see two figures* walking our way (<https://books.google.com>);
6. *They saw two men* produce guns in the bank. (<https://books.google.com>);
7. *They saw three* of them on some days but there were also long gaps of months or even years (<https://books.google.com>);
8. Then *he saw three men push* themselves through the crowd up to the gate (<https://books.google.com>);

9. *We see three people* lying on a make shift raft made up of what appears to be broken boat pieces (<https://books.google.com>);
10. *I see four* dead men who are not dead, but live, who are and will be greater than the dead (<https://books.google.com>);
11. *I saw four* more sheep along the route I must take to get there. (<https://books.google.com>);
12. *I see five or six* people and help forestall problems that might deteriorate (<https://books.google.com>);
13. The admins tell us that *they saw four players* from a small town in Colorado. (<https://books.google.com>);
14. On the way down to my sled *I saw four more* ptarmigans coming out of the sun. (<https://books.google.com>);
15. *He saw five* old and miserably emaciated Indian women, gathering grass-seed for bread. (<https://books.google.com>);
16. They had five hours twentyfive minutes to keep alive, but first hours of the day *saw five ship* crash on the waves (<https://books.google.com>);
17. *I saw many hundreds of beggars* looking quite as wretched (<https://books.google.com>);
18. ...brackets round the three times *three see* (<https://books.google.com>);
19. *Did you all four see* what it was?" (<https://books.google.com>).

*In the English language, in the implementation of the category of retelling*, cardinal numbers in the informational part are extremely rare. Revealed only 2 examples with a numeral *two*, situation of informing in which the verb *to report* in Present Simple is presented (1), (2); 14 examples with numeral *two* (3) – (5) and 7 examples with numeral *three* (6), (7), the reference-authorized part of which is represented by a verb *to report* in Past Simple (data of British National Corpus). There is a steady preference for past tense forms.

Verb *to report* more often found in constructions with inanimate nouns expressing authorized and anonymous sources of information (3) – (9). In addition to the primary function of quantification, numerals specify situations of information by specifying the date *The Times of February 21*(3), *on March 23 it was reported* (4), *on Feb. 20 Nepali Radio reported* (6), *The Independent of April 6* (7), *on May 8, Barcelona television reported* (8) when representing a particular media. The category of retelling is characterized by the possibility of representing impossible to observe large-scale or negligible small quantitative data. The functioning of numerals in the informational part consists in the representation of various statistical data involving any indicators *report that two Azerbaijanis had been killed, 32 people were killed, 197 were injured, including more than 100 police officers* (1). Specific quantitative data testify to the objectivity of what is being reported and reflect the desire of the narrator to illustrate his conclusions.

Examples:

1. The demonstrations came temporarily to an end after a personal appeal by Gorbachev on 26 February, but *report that two Azerbaijanis* had been killed the previous week led to an anti-Armenian riot on 28-29 February in the oil town of Sumgait in which *32 people were killed and 197 were injured*, including more than 100 police officers (<https://books.google.com>);
2. I *report that two* experiments are going on (<https://books.google.com>);
3. The Times of February 21 *reported that two* more activists, Wang Zhixig and Li Minqig, were soon to face trial for "revolutionary crimes" (<https://books.google.com>);
4. On March 23 *it reported that two* hundred and fifty-eight negroes had been delivered by Captain John Jackson (<https://books.google.com>);
5. Several unions *reported that two* organizations of workers had led to the reduction or elimination of past patterns of discrimination in hiring and job placement. (<https://books.google.com>);
6. On Feb. 25 newspaper *reported that twenty-three* people suffered during an attack with police (<https://books.google.com>);
7. The Independent of April 6 *reported that three* more groups of opposition were formed (<https://books.google.com>);
8. On May 8, Barcelona television *reported that five journalists* had been commenting from their hotel rooms, this was perceived as a professional failure and a breach of confidence.
9. Vietnamese officials *reported that 18 civilians* were killed yesterday.

*In the English language, when representing the category of perceptiveness*, ordinal numbers as adverbs determine the sequence of perception of objects of reality *first saw* (1), (2) - 184 examples show the frequency of functioning. The number of examples with a sequence of perceived objects decreases with an increase in the order index – the first objects are highlighted in 42 phrases *saw first*, second – in 17 phrases *saw second*, third – in 50 phrases *saw third*. Similarly, the functioning of ordinal numerals in *the realization of retelling*. The function of adverbs determines the sequence of the message information in 47 phrases *first reported* (5), (6). Examples are distributed in descending order depending on the growth rate *first, second (third rarely): reported first* – in 143 phrases, *reported second* – in 55 phrases. The identified examples of abstract content are similar in structure — the perceptor / informant is represented by an inanimate organization, and the ordinal number determines the order of quarters for the reporting year. Sources of examples are limited to financial statements (3), (4). No examples were found with both the verb to inform and the expression second reported. The functioning of ordinal numbers in the frequency of statements with verbs perception of abstract content.

Examples:

1. I *first saw* her on the 7th of July (<https://books.google.com>);
2. Little Didl think when I *first saw* him that he could possibly, at his time of life, bear the rough and tumble of the heaviest fighting in history (<https://books.google.com>);
3. Masraf Al Rayan announced a profit of QR1.2bn (\$330.5m) in 2007 and then *saw first* quarter profits for 2008 rise to ... (<https://books.google.com>);
4. The world's largest maker of LCD glass by revenue *saw 2008 first quarter* profit plunge 65% (<https://books.google.com>);
5. Radio Familia *first* reported that it received an anonymous tip that same afternoon to leave the station (<https://books.google.com>);
6. Pacific coast arrivals *were first reported* in 1850 ... (<https://books.google.com>).

#### 4. Discussion

The analysis of quantitative parameters would be incomplete without determining the possibilities of specific quantification in the implication of a situation of perception due to the ability to encode spatial reference and temporal reference states. Quantitative certainty can be considered as a means of updating spatial reference and, as a result, temporal. The features of numerals consist in the fact that they, as nouns, perform the functions of the subject, the object, the nominal part of the predicate, and, as determinants, actualize the noun independently. Ordinal numerals are placed in a special semantic category of adjectives. Quantitative numerals perform a clarifying function, specifying the value of an indefinite set represented by the category of a number. Quantitative and ordinal numerals in morphological categories do not change. Numbers are closer to determinatives and adjectives, i.e. act in a determinative function.

In English, cardinal numerals and ordinal numerals are distinguished. Cardinal numbers perform the functions of: 1) the subject: *350 is* the number that represents the safe amount of carbon...; 2) object: *Subtracting 92 from 238* gives the number of neutrons in the uranium nucleus as 146.; 3) attribute: *There are four kinds* of tempers: he whom it is easy to provoke and easy to pacify, his loss disappears in his gain; 4) the nominal part of the compound predicate: It is defined *as one-twelfth of the mass of a carbon twelve* atom.

#### 5. Summary

Summing up the results of the functioning of numerals in the composition of statements of evidential semantics, we can draw the following conclusions:

1. the numerals as a means of specific quantification with small indicators function in the realization of the category of perception;

2. quantification is limited by the capacity of perceptual space;
3. the categories of retelling are typical of statistical and scientific indicators, the range of functioning of numerals is not limited to any indicators.
4. ordinal numerals express a set whose components are arranged in a natural numerical order, which is recognized as a sign. If they are present in the statement, the value of the diachronicity, which dominates the semantic content of the statement over other quantification indicators, is expressed - the diachronicity of the evidential situations is unambiguously expressed.

## 6. Conclusions

Lexical means as secondary means of specifying quantitative information in a language imply a wide range of meanings. Nouns and adjectives express an indefinite number on the basis of a subjective assessment — many / numerous. The numerals specify quantitative information - three / six. Quantities and adverbs of frequency represent an indefinite number, but the specificity of its expression is based on correlation with the basic finite indefinite set, which determines the differentiation of their values.

The functioning of specific numerals correlates with the deicticity of perceptual space. If the primary deixis is given by the parameters *I - here - now*, then a similar deictic function is inherent in a specific quantification. The statement “3 trees” implies a specific segment of space, spatial reference and, therefore, temporary. A closed segment of space implied by a specific quantification coincides with the boundedness of the perceptual space.

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