

Quantifiers in the Dictionary

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The entry in a dictionary (mono- or bilingual) should contain information specifying the conditions of use of the word described. These conditions may roughly be divided into denotative (or «external» or «objective»), that is those concerned with the features of the extralinguistic reality which the word in question can be applied to, and pragmatic (or «communicative», or «subjective»), that is those related to the features of communicative situations in which the words can be appropriately used.

Distinctions should be drawn between those words the entries of which contain mainly or exclusively pragmatic information (e.g. particles) and words to which the «objective» information is more or even solely important: names of physical objects, so called «logical words». It is to this latter type that quantifying words of natural languages (words that express quantitative estimates of some sort) are generally supposed to belong.

Much attention is paid to quantifying words in logically oriented studies of natural languages. The main object of analysis in most of such studies are, however, those linguistic expressions the sense of which is more or less close to the sense of the logical quantifiers —that is such words as *all*, *every*, *each*, *any*, *some*.

A large part of the studies of this kind actually concentrates on the question of how the functions of the universal and existential quantifiers of formal logic are conveyed by natural language means.

Meanwhile it has become clear that the apparatus of formal logic is not sufficient for a complete lexicographical description of quantifying words of natural languages.

The natural language quantification is based not on the classical set-theory, but rather on the «ensemble-theory», developed by H. Bunt (Bunt, 1985), which is an extension of the classical set-theory (the relation «element-set» is in Bunt's axiomatics a particular case of the relation «part-whole», and usual discrete sets —a particular case of «ensembles»).

The necessity of such an extension of the classical set-theory for interpretation of natural language quantification is due to the fact that corresponding words express a quantitative estimate not only of discrete sets, but also of uncountable mass and of abstract entities.

The second important peculiarity of the area under consideration consists in the fact that there are two types of quantification in natural languages (Larsson, 1973). The quantification of the first type expresses proportion of the referent of a noun-phrase (NP) to the comprehensive («known» or «given») whole («ensemble»). The quantifying word in this case expresses either the fact that the referent of an NP coincides with the comprehensive whole or the fact that it is a part of it. This may be called a logical type of quantification. As for the second type of natural language quantification, it is radically different from the logical type. If we say (in Russian) *В комнате было много народу* («There were many people in the room»), the question of what is proportion of people being in the room to the general amount of the living men is quite irrelevant. What matters here is a quantitative estimate relative to some stereotype —the amount of men felt as normal for the given situation. It should

be stressed that this sense is not due to the syntactic construction: in a number of languages (Russian included) the difference between the two kinds of quantification is lexicalized.

Last but not least the relevance of communicative factors to natural language quantification should be mentioned. There are quantifying words interpreted in dictionaries as synonyms or quasi-synonyms (e.g., Russian *весь* 'all' and *целый* 'whole', *мало* 'little, few' and *немного* 'a little', lit. 'not-much') which nevertheless may convey quite different information or at least have quite different communicative intent. This is connected with the difference of communicative structure of quantifying words: words of one type may assert the existence of the quantified domain whereas words of another type may presuppose it. This difference in the thematic-rhematic structure of sentences which contain the words in question are reflected in their prosodic characteristics. But it is important to emphasize that the corresponding peculiarity is an inherent property of the words themselves, which is therefore to be fixed in dictionaries.

What follows are some lexicographical notes touching upon some neglected properties of some of the Russian quantifying words. Naturally, we by no means hope to exhaust them.

We will begin with a set of words which involve reference to a totality, namely *весь*, *всё*, *все* (the English gloss for them is *all*). In logically oriented works little or no attention is paid to the word *весь*, singular (feminine *вся*, neuter *всё*). This is especially striking in view of the fact that quite a few works are devoted to the word *все*, plural ('all, every' or, as a noun, 'everybody') which is being investigated as one of the ordinary language realizations of the universal quantifier of logic. Thereby the traditional view according to which *весь* and *все* belong to the same lexeme (as singular and plural forms respectively) is ignored or rejected. Sometimes an attempt is being made to justify this solution by pointing out to a considerable semantic difference between *весь* and *все*: the former is said to apply to an object considered 'wholly' or 'collectively' (and to be synonymous with *целиком*, *целый* 'whole', 'in whole'), while the latter is alleged to apply to a set of individuals taken separately, or «distributively» (and to be synonymous with *каждый* 'every, each').¹

But however considerable this distinction might seem, it is far from being in a strict correlation with the singular-plural distinction in Russian (for more details see Булыгина, Шмелев, 1988a, б). Both forms may be used either «distributively» or «collectively» and irrespectively of this they share some significant semantic and syntactic peculiarities (by which they are both opposed to the word *целый*, on the one hand, and to the word *каждый*, on the other — see below). The above-mentioned «ensemble-theory» of H. Bunt makes it possible to give a uniform interpretation to all the forms of the lexeme *весь* (*все*), the essential sense-component of which would be co-extension of the referent of the relevant NP with the comprehensive (discrete or non-discrete) ensemble (the term «ensemble» referring here to any object which can be thought of as a «whole» consisting of corresponding «parts»).

An important characteristic of the lexeme *весь* (*все*) is that it may be appropriately used only in case the comprehensive ensemble is known, or «given» to the hearer, is, so to say, familiar for him or for her. This familiarity may be of two kinds:

1. Cp. the suggestion to consider *каждый* and *все* as the suppletive (singular and plural, respectively) forms of the same lexeme in [Зализняк, Падучева 1974].

1) the comprehensive set consists of one or several objects which have been previously introduced into the universe of discourse or unambiguously determined by the chosen description (as in *Все дети, кажется, уснули* 'all the children seem to have fallen asleep') or 2) the comprehensive set is a whole extension of the corresponding term, permanently present in the conceptual framework of the hearer (as in *Все слоны любят земляные орехи* 'All elephants like peanuts'). In the former case (which we may call, following S. Krylov (Крылов, 1984), «an occasional familiarity») we are dealing with a specific definite kind of reference, in the latter (which may be called after the same author «a permanent familiarity») —with a generic (universal) kind of reference.

The sense of a «permanent» or an «occasional» familiarity distinguishes the lexeme *весь* from allegedly synonymous word *целый* («whole»). Besides, the latter does not quantify sets. A quantitative sense of noun phrases with *целый* appears due to the fact that *целый* co-occurs with words of quantitative semantics, which express the notion of quantity (or, rather, measure) in their own right.

The conditions of use of *весь* and *целый* are very different. The word *весь* has hardly any selectional restrictions, for nearly anything can be thought of as a whole consisting of some parts. But the word presupposes the fact of the quantified domain being previously presented to the hearer and it tends to be used in noun-phrases functioning as the topic of the sentence. Contrariwise the word *целый* has strict selectional restrictions in that it co-occurs only with words of quantitative semantics (or at least with words having a clear quantitative connotation) and it belongs to words of, so to say, excluded topicality.

When the words *весь* and *целый* do occur in identical contexts they differ in meaning and in communicative intent. *Целый* in such noun-phrases as *целый день* ('all day long'), *целая дюжина* ('a round dozen') has a pragmatic meaning, something like «I suppose, you understand that that is too much (many)». The combinations of the words *весь* and *целый* with quantitative nouns differ in that the former are definite. Such noun-phrases as *весь день*, *всю неделю*, *весь месяц* may be used only if it is known which day, week or month are meant. Consider the utterances *Иван выпил всю бутылку виски* ('Ivan has drunk all the bottle of whisky') and *Иван выпил целую бутылку виски* ('Ivan has drunk a whole bottle of whisky'). Using the first utterance the speaker may intend to inform the hearer that a certain bottle of whisky about which the hearer was aware is no longer existent, while in the second case the speaker may well intend to inform the hearer about Ivan's lamentable state. *Целый* in *целая бутылка виски* does not give a quantitative estimate of the referent, but rather emphasizes the quantitative estimate, which is expressed without it.

The similarity between *все* ('all'; 'everybody') and *каждый* ('every') is greater. But they certainly are far from being interchangeable in all contexts.

Consider the following sentence (used in a translation from Slovak): *В таких ситуациях каждый мужчина ведет себя одинаково глупо* ('In such situations every man behaves in an equally stupid way'). Here NP *все (мужчины)* ('all men') would have been much more appropriate than *каждый (мужчина)*, for the latter quantifier presupposes individuation, which is hardly compatible with «symmetrical» predicate *одинаково*. That is why the above cited example sounds strange; almost as strange (and for similar reasons) as a humorous phrase from Chekhov's note-book: *Посмотрите, как похожи братья, особенно Аевксандр* ('Look, how similar the brothers are, especially Alexander!').

Now we'll turn to non-universal quantifiers, referring to a small or a great amount of the quantified set, namely мало, немного, много, немало, многие, немногие etc.

We'll begin with the words мало ('little, few') and немного ('a little'), the latter—a morphologically complex word with a prefixal negation—literally 'not-much', 'not-many', or more precisely—'un-much', 'un-many'. According to the standard view (reflected in dictionaires) these words are very close in meaning: both refer to a small amount of something or a small degree of a property predicated to something. In some contexts these words are indeed interchangeable with the meaning preservative: Денег у него осталось совсем мало and Денег у него осталось совсем немного both mean something like 'He has very little money left'. But there are sentences with these words which are quite different in sense or, at least, have quite different communicative intent. Consider the utterances Ивана немного беспокоил ход дела and Ивана мало беспокоил ход дела. The former means roughly 'Ivan was a little worried about the outcome', that is it informs of the fact of Ivan's anxiety, whereas the latter—'Ivan was little worried about the outcome'—tells us, rather, that Ivan was indifferent.

The same goes for utterances like: у меня дома есть немного виски ('I have a little whisky at my home') and у меня мало виски ('I have little whisky'). The former (said, for instance, in reply to a suggestion «What about a drink?») may sound as an invitation, while the latter in the same situation is rather an explanation for failing to meet the suggestion.

Such phenomena can be accounted for by means of the differences in the information potential of the words in question. An utterance with немного may assert the existence of the quantified domain. By using an utterance with мало the speaker informs that the quantity of what he or she refers to is less than one might expect. The existence itself of the quantified set (or of the quality possessed) is presupposed—in a broad sense of the term «presupposition». It would be, probably, more appropriate to speak not of the existential presupposition of quantifying phrases with мало but rather of their presuppositionally marked status *vis-à-vis* phrases with немного, which means that the utterances with мало (in contrast to немного) typically occur in cases where the corresponding existential statement has been mentioned or contemplated, or when the speaker believes that the hearer tends towards such a statement.

The considerable portion of the last sentence is a quotation from Givón's definition of negatives as being presuppositionally marked *vis-à-vis* affirmatives (Givón, 1971). It is a curious thing about the pair of Russian quantifiers we are discussing that the relation between them is inverted, as it were: немного, a morphologically complex word with overt negative prefix, plays the part of the affirmative, and a simplex мало plays the part of the negative term, and can in fact (though with some reservation) be semantically defined as 'not much' or 'not many'.

The existence-presupposing markedness of мало and the focal (rhematic) character of quantitative information itself associated with this word, accounts for its incapability to be used in sentences with the non-zero present form of existential verb есть. Such sentences as, say, у меня есть мало денег (roughly 'I do have little money') or В книге есть мало опечаток (roughly 'There are misprints in the book, and they are few') are ungrammatical precisely because the form есть asserts rather than presupposes the existence of the referent of the (surface) subject, while мало presupposes rather than asserts it. The information potential of мало is reflected in the pro-

sodic characteristics of the corresponding utterances: *мало* usually carries a heavy sentential stress. But it is essential for a lexicographer that the intonation is predetermined in this case by the communicative role of the word discussed, not vice versa.

That is why if we come across an utterance with *мало* while reading a written text we would not hesitate to properly estimate the contribution of this word to the total communicative sense of the utterance. The character of this contribution is an inherent property of the lexical meaning of the word *мало* itself and so it is to be fixed in dictionaries.

The word *немного* has different information potential. Functioning as a so-called adverb of degree of predicative property it never carries the sentential stress. Its function in that type of use is to ascribe the property to the subject while information that the property manifests itself to a small extent constitutes a secondary assertion. This information is often completely pushed into the background, so that *немного* is used only to «soften down» the statement. Thus the utterance *Я немного сведущ в проблемах лексикографии* ('I am a little competent [literally, 'not-much competent'] in lexicographical problems') would be in all probability interpreted as a «*figura modestiae*» which might have been pronounced by an expert in lexicography. The utterance *Она немного странная* ('She is a little odd', literally 'She is not-much odd') would not mean that an amount of «oddity» is less than enough but rather that it is quite sufficient for «her» to be called «odd». Such an utterance would be most likely taken as an understatement, which may be illustrated with this dialog from a translation of a novel by Iris Murdock: *Она немного странная, не правда ли? – Вы имеете в виду сдвинутая, сумасшедшая.* ('She is, isn't she, a little odd? - You mean deranged, crazy').

Turning to the words denoting a considerable amount of the quantified domain, namely *много* ('much, many') and *немало* ('not little, not few') it should be noted that the interrelation between them is not parallel to that between the words *мало* and *немного* as the parallelism between their respective morphological structures might suggest. The similarity between *много* and *немало* as to their communicative behaviour is much greater, and in some respects those words are both opposed to the word *мало* on the one hand, and to the word *немного* on the other. Being «less rhematic» than *мало* the words *много* and *немало* are well at home, in contradistinction to *мало*, in existential sentences with the non-zero present form of the existential verb: *В работе есть много интересных наблюдений* ('There are many interesting observations in the work'); *у нее есть немало недостатков* ('She has not-few flaws').² On the other hand, *много* and *немало* are «more rhematic» than *немного* in that, in contrast with the latter word, they always belong to the assertive portion of the utterance either as the main or as an additional assertion (see Бульгина-Шмелев, 1988b).

Beside the differences mentioned above the adverbs *мало*, *много*, *немало*, *немного* do have some features in common. All of them may quantify both discrete and non-discrete sets and give a quantitative estimate of the set not in relation to some comprehensive set but rather in relation to some norm or to another correlative (complementary) set.

Those features distinguish the above discussed words from their counterparts functioning as adjectives and nouns, namely *многие*, *немногие*, *мало кто*, *мало что*,

2. So the observation that «...est' does not normally appear in sentences whose "object" NP is quantified or qualified» (Chvany 1973, p. 71) is not quite accurate.

многое, немногое. Those words may quantify only discrete sets. When they function as nouns they are lexically distinguished in that *многие, немногие, мало кто* ('many', 'few', 'few-who') quantify sets consisting of human beings, while *многое, немногое, мало что* —sets consisting of inanimate (often abstract) objects. Those are rather trivial selective restrictions and they are often noted in dictionaries. What is less trivial (and generally unnoticed) is the fact that these words differ from their adverbial counterparts in the type of quantification.

The phrase *многие женщины* refers to a considerable part of the comprehensive class of women (the logical type), whereas the phrase *много женщин* refers to an amount of women which is considered as great from some special point of view (the pragmatic type).

That is why the sentences *Немногих женщин выбирают в Академию* 'Not many (adj.) women are elected to the Academy' and *В этом году в Академию выбрали много женщин* 'This year many (adv.) women were elected to the Academy' may be both simultaneously true.

The communicative behaviour of the words being discussed is in some respects similar to that of their adverbial counterparts. The words *мало кто* (literally 'few-who') and *мало что* ('little-what') express the main assertion of the statements which contain them, and usually carry the sentential stress. *Многие* ('many') and *немногие* ('few') express, according to the intonation, either the main or secondary assertion. The word *немногие* (not many) is peculiar, though, *vis-à-vis* *многие* ('many'). The peculiarity is that it may participate in quantification both of the logical and of the pragmatic type. Thus such an utterance as *На ее доклад пришли ее немногие друзья* (roughly 'Not many friends of hers came to hear her paper') is ambiguous. It may mean that only a small part of «her friends» came —here the word *немногие* expresses proportion relative to the comprehensive set of her friends, so it is the *logical* type of quantification. Alternatively, the utterance may mean that all of her friends, which are small in number, came to hear her. Here the word *немногие* estimates the whole number of her friends relative to the speaker's idea of the norm of the quantity of friends an average person is supposed to have. In this sense the word *немногие* is synonymous with the adjective *немногочисленные* 'not numerous'. The word *многие* ('many'), in contrast, can express only the first, so to say 'partitive' sense (*многие ее друзья* means 'many of her friends'), while the second, non-logical, sense may be expressed only by the adjective *многочисленные* 'numerous'.

(If one is to trust dictionaries, in English it is the other way round: *numerous* is cited as a synonym of *many*, while in the entry of *few* the corresponding synonym (*not numerous*) is not mentioned.)

The context can disambiguate noun-phrases with *немногие*. Consider the following two utterances with *немногие* and *многие*, where *немногие* has only one sense, that, however, does not correspond to the sense of its antonym *многие*: *Немногие / Многие присутствующие лингвисты обиделись, услышав, что лексикография не нуждается в результатах их исследований*. The former means literally: 'Not-many linguists present were offended to hear that lexicography does not need cooperation with them' and the definitely preferable sense of it would be: 'The linguists present (which were not numerous) were offended, etc'. So *немногие* here characterizes (as small) the whole set of the quantified domain —the linguists present. As to the second sentence with the noun-phrase *Многие лингвисты* 'Many

linguists' it may mean only that for just a part (though a considerable part) of the comprehensive set of the linguists the propositional function is true.

Немногие differs from многие also in that the former refers to the minority of the quantified set, whereas the latter does not necessarily refer to the majority. That is why it is possible to say Многие ушли, но многие остались ('Many have left, but many have stayed') but it is non-sensical to say Немногие ушли, но немногие остались or Мало кто ушел, и мало кто остался ('Few have left and few have stayed'). (The situation in English seems to be the same and so one can doubt the validity of comments of some dictionaries where *many* is equated with *majority*.)

What has been said is just an illustration of the fact that natural language quantifiers have a lot of peculiarities that are often idiosyncratic and language-specific. That makes the task of lexicographers describing them in a dictionary far from trivial.

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