

Predicate agreement with quantifier phrases containing the words *polovina* or *tret'* and an approximative marker

Предикативное согласование с квантитативными сочетаниями, включающими слова *половина* или *треть* и показатель приближительности

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Abstract This paper focuses on predicate agreement with quantified phrases that include *bole*, *svyše* 'more', *okolo* 'about', *menee* 'less' and the nouns *polovina* 'a half', *tret'* 'a third', and numerals. This study based on data from the National Russian Corpus describes the modern standard of predicate agreement with quantified phrases containing *okolo*, *bole* + *poloviny* / *treti*. The data show that a predicate is most likely to occur in the singular with '*bole*, *okolo* + numeral' and in the plural with '*okolo*, *bole* + *polovina* / *tret'*'. The author proposes an answer to the question of why the standards of agreement for quantified phrases with similar structures are different. The factors that influence the form of the predicate are also examined.

Аннотация В статье рассматривается согласование сказуемого с подлежащим, выраженным квантитативным сочетанием, возглавляемым предлогом или наречием со значением приближительного количества (*более*, *менее*, *около*, *свыше*) и включающим кванторное существительное (*половина*, *треть*) или числительное. Исследование на базе Национального корпуса русского языка позволяет описать современную узкую норму и актуальные тенденции в выборе стратегии предикативного согласования. Анализ показывает, что сказуемое более вероятно ставится в единственном числе при согласовании с предложной или наречной группой, включающей числительное, и во множественном числе при согласовании с предложной или наречной группой, включающей существительные *половина* или *треть*. В работе объясняются причины различия в согласовании с квантитативными сочетаниями одинаковой структуры. Рассматриваются факторы контекста, влияющие на выбор формы сказуемого.

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1 Introduction

This paper deals with Russian predicate agreement with prepositional and adverbial quantified phrases which are headed by the prepositions *okolo* ‘about’, *svyše* ‘more’ and by the adverbs *bolee* ‘more’, *menee* ‘less’ and that express approximative quantitative meaning, for example: *Okolo poloviny studentov proxodili stažirovku v inostrannyx universitetax* ‘about half of the students were trained in foreign universities’.

In Russian, as in the other Slavic languages, predicate agreement with quantified noun phrases and quantified prepositional phrases is characterized by variability. There are three known agreement strategies likely to occur with quantified phrases:

- The predicate may agree with the quantifier heading the quantified NP and may take the singular of the relevant gender (if the quantifier is a noun): *V ètom godu polovina detej poseščala kružki i sekcii*. ‘This year half of the children attended classes and workshops’. This type of agreement is usually called either grammatical (Skoblikova 2005, pp. 175–179; Rozental’ 2010, p. 257) or syntactic or, more exactly, full agreement (Corbett 1979a, pp. 37–38, 88–89 etc.).
- The predicate may coordinate with a quantifier or with a numeral which has no features of gender or number and takes the singular neuter: *Na juže Rossii bylo organizovano neskol’ko naučnyx centrov*. ‘Some research centers were organized in the south of Russia’. In this type of example, the gender is neutralized and the predicate number is converted into the singular for purposes of agreement (Suprun 1965, pp. 12–13; Corbett 1979a, p. 78). This is agreement by default (Corbett 1979a, p. 78).
- The predicate may take the plural, in which case we see agreement based on meaning, or semantic agreement (Corbett 1979a, pp. 37–38; Skoblikova 2005, pp. 175–179; Rozental’ 2010, p. 257): *Bolee sta prodžuserov rabotajut na rossijskom rynke*. ‘More than a hundred producers operate on the Russian market’.

The choice of agreement strategy depends on a number of factors and primarily on the morphosyntactic features and semantics of the quantified phrase, or more precisely, of the quantifier (or numeral) (Skoblikova 2005; Krasovitsky, Baerman, Brown, Corbett, and Williams 2010). In particular, the predicate agrees semantically with quantified phrases, which include numerals (especially *dva* ‘two’, *tri* ‘three’ or *četyre* ‘four’), while with quantifiers such as *stol’ko* ‘so much / so many’, *mnogo* ‘much / many’, it mostly agrees in the neuter singular (by default) (Corbett 1979a; Krasovitsky et al. 2010). Furthermore, as a whole series of studies has shown, the choice of the predicate form is determined by contextual factors such as word order, animacy of the subject, type of predicate, lexical content of the predicate, and topic-focus structure, among others (Graudina, Ickovič, and Katlinskaja 1976; Crockett 1976; Corbett 1979a, 1979b, 1983, 1998; Robblee 1993a, 1993b; Nikunlassi 2002; Skoblikova 2005 etc.).

Since the features of quantified phrases have a decisive influence on agreement, a description of the peculiarity of the agreement of the predicate with each kind of quantified phrase seems to be necessary. An investigation of the rules of predicate agreement with different quantified phrases may let us find the probability of each individual occurrence for agreement strategy in sentences containing quantified phrases as well as allowing us to define the influence of different contextual factors.

Quantified prepositional and adverbial phrases (qPP, qAP), which have received little attention in connection with predicate agreement, will be the focus of the analysis described in this paper.

These constructions have been examined taking several aspects into account.

The syntactic structure of these kinds of qPPs was studied by Mel'čuk (1985, pp. 363–375) and Babby (1985) and, later, by Billing (1995), who follows Babby's analysis of these constructions.¹ These researchers give a different interpretation of this syntactic structure. Mel'čuk asserts that the phrases which consist of a preposition with an approximative meaning, a numeral (or quantifier) and a noun in the genitive are qPPs and shows that the preposition with an approximative meaning is the head of that qPP (Mel'čuk 1985, pp. 363, 366–368). Babby, analyzing preposition phrases with *okolo*, distinguishes between two meanings: a 'proximate' (locative) meaning and an 'approximative' (quantificational) meaning. In the latter case Babby interprets the construction as a noun phrase, combining the preposition and the numeral to form a quantifier constituent of the noun phrase (Babby 1985, pp. 96–99).

We believe that the question of what actually constitutes the head of qPPs or qAPs remains controversial. This paper is based on Mel'čuk's interpretation. We hope that the investigation of the predicate agreement of qPPs and qAPs with an approximative meaning will enable a better understanding of the syntactic structure of these phrases.

Mel'čuk, Babby's and Billing's analyses do not include predicate agreement, but Mel'čuk (1985, p. 373) notices some contextual factors that influence the choice of the predicate form, such as lexical features of the predicate and the semantics of the qPP.

Graudina et al. (1976) analysed statistics gathered on predicate agreement with quantified phrases such as *okolo milliona čelovek* 'about a million people'. The authors conclude that in this case the default agreement (in the neuter singular) is most likely, and indicate some contextual factors that influence the predicate form (ibid. pp. 29–30). These results seem to focus more on predicate agreement with prepositional phrases that include numerals than on those with quantifier-nouns. The ratio of singular to plural forms of the predicate found by Graudina et al. (1976) is similar to that which the present author has found for sentences with prepositional phrases containing numerals (Kuvšinskaja 2013). All these data will provide a sound basis for understanding the specifics of predicate agreement with the qPPs *okolo poloviny* 'about a half', *bolee treti* 'more than a third' etc.

Corbett, looking at predicate agreement with various types of quantified phrases, analyzes an example with the qPP 'okolo + numeral + countable noun' and points out that the preposition *okolo* at the head of the phrase, by blocking the influence of the countable noun, causes default agreement (Corbett 1979a, p. 86). But the data from the National Russian Corpus show that a predicate can agree in plural with the noun of qPPs such as '*okolo* (or another preposition or adverb that has an approximate meaning) + numeral + countable noun' as well (Kuvšinskaja 2013).

The factors that influence the choice of the predicate form in sentences with the construction '*okolo / bolee / menee / svyše* + numeral + countable noun' in contemporary Russian have been dealt with in another paper by the present author (Kuvšinskaja 2013).

Thus, predicate agreement with qPPs containing a preposition with an approximate meaning, numeral and countable noun has already been partly examined. With regard to qPPs and qAPs with an approximate meaning containing the words *polovina* 'a half' or *tret'* 'a third', predicate agreement has never been analysed in any great detail. Nevertheless, these kinds of sentences provide examples of an interesting and unexpected distribution of agreement strategies that differ from the distribution observed in sentences containing qPPs and qAPs with an approximate meaning that also contain numerals.

This paper deals with the agreement of predicates with qPPs and qAPs '*okolo / bolee / menee / svyše* + *polovina / tret'* (in the genitive) + noun (in the genitive)' and compares them

¹Syntactic structure of sentences with a quantified NP (without approximative markers), which is also important to note, is discussed in detail at Corbett (1979a), Franks (1995), Ljutikova (2015) and some other papers.

to predicate agreement with the qPPs and qAPs ‘*okolo / bolee / menee / svyšē + numeral + noun in the genitive*’.

We will call the prepositions and adverbs (comparatives) with an approximate meaning ‘approximative markers’, using the term proposed by Mel’čuk (1985, p. 362).

Approximative markers, in addition to the prepositions and comparatives mentioned before, include such words as *primerno* ‘around’, *priblizitel’no* ‘approximately’, *do* ‘up to’, etc. (Mel’čuk 1985, p. 362). However, sentences with these kinds of words were not taken into account for this paper, as the quantifier is not in the genitive in these types of phrases, but in the nominative (for example: *primerno polovina studentov* ‘around half of the students’), and predicate agreement, as our observations show, does not differ from agreement with the same quantifier word in the nominative without an approximative marker (*polovina studentov* ‘half of the students’). This seems to be logical, since the syntactic structure of quantified phrases with *primerno* and *priblizitel’no*, as Mel’čuk argues, differs from that of quantified phrases with *okolo*, *bolee*, etc. According to Mel’čuk, an approximative marker like *primerno* or *priblizitel’no* is dependent on the numeral or quantifier, while the preposition or comparative (*okolo*, *bolee*) is the head of a quantified phrase (Mel’čuk 1985, pp. 362–363).

This paper is based on an analysis of 486 examples with qPPs and qAPs, consisting of the words *okolo / bolee / menee / svyšē + polovina / tret’*. In addition, for the purposes of comparison, we looked at 1,295 examples with qPPs and qAPs including *bolee / menee / okolo / svyšē + cardinal numeral* (e.g., *okolo pyati knig* ‘about five books’).

For our research we used material from the Main Corpus of the Russian National Corpus (RNC, www.ruscorpora.ru), specifically samples from the period 1990–2014. The data concerning predicate agreement with qPPs and qAPs containing numerals has been taken from Kuvšinskaja (2013) and covers the time period from 2000–2012.

2 Predicate agreement with qPPs and qAPs including an approximative marker and the words *polovina / tret’*, based on RNC data

2.1 Choice of predicate form in sentences with qPPs and qAPs including an approximative marker and the words *polovina / tret’*

In the sentences with quantifier phrases headed by the words *okolo*, *bolee*, *menee* and *svyšē* and including the words *polovina* or *tret’* the predicate may take on a singular neuter form, see (2), or plural form (1) and rarely even the singular feminine (3). Singular neuter and plural forms are almost equally likely to occur, while plural forms are more likely in sentences with particular qPPs and qAPs (see Table 1).

- (1) *Bolee poloviny vsech ptencov ne doživajut do vtorogo goda žizni.*
‘More than half of all nestlings do not survive to the second year.’
(A. Volkov. *Rasskazy o životnyx... Znanie – sila*. 2003)
- (2) *Tak, okolo treti našix graždan gotovo otpravit’sja v Stranu vosxodjaščego solnca na vosstanovitel’nye raboty.*
‘So, about a third of our fellow citizens are ready to come to the land of the rising sun for restoration work.’
(N. Gurina. *Tret’ rossijan gotovy otpravit’sja v Japoniju na vosstanovitel’nye raboty*. 2011.03.23)

Table 1 Predicate agreement with quantifier phrases containing an approximative marker and the words *polovina* / *tret'*

Predicate	Subject						
	<i>Okolo poloviny</i>	<i>Svyše poloviny</i>	<i>Bolee poloviny</i>	<i>Menee poloviny</i>	<i>Okolo tret'</i>	<i>Bolee tret'</i>	<i>Menee tret'</i>
Singular neuter	53.5% (53)	23% (2)	43.7% (107)	61.5% (16)	39% (18)	45% (22)	33% (4)
Singular feminine			0.4% (1)		2% (1)		9% (1)
Plural	46.5% (46)	77% (7)	55.9% (137)	38.5% (10)	59% (27)	55% (27)	58% (7)
Total	100% (99)	100% (9)	100% (245)	100% (26)	100% (46)	100% (49)	100% (12)

(3) Segodnja *okolo tret'* *rashodov* sistemy *ne obespečena* den'gami.

'Today, about a third of the expenses of the system are not secured in currency.'

(I. Ivanov. Straxovat'sja budem dobrovol'no. *Nezavisimaja Gazeta*. 2003.07.22)

2.2 The role of the approximative marker in choosing the predicate form

The data given in Table 1 suggest that the choice of predicate seems to vary depending on the preposition or adverb in the sentences with qPPs and qAPs containing the word *polovina*. Predicate agreement in the plural occurs more frequently in combination with quantifier phrases such as *bolee poloviny* and *svyše poloviny*; however, in combination with *okolo poloviny* and *menee poloviny*, the predicate is more likely to take a singular neuter form.

To estimate the statistical reliability of the data, we used Pearson's Chi-squared test along with Yates' continuity correction and Fisher's exact test. The coefficients were estimated using the calculator available at <http://graphpad.com/quickcalcs/contingency2>.

We compared the probability of plural and singular neuter form of the predicate in the sentences with *okolo poloviny* and *bolee poloviny* and then in sentences with *svyše poloviny* and *menee poloviny*. The Pearson's Chi-squared test along with Yates' continuity correction showed that the choice of predicate does not depend on the preposition or adverb that heads the qPP or qAP.

For the samples with *okolo poloviny* and *bolee poloviny* the Chi-squared value is 2.278 with 1 degree of freedom. The two-tailed P-value is 0.1312. The associations between the qPP or qAP and the form of the predicate are therefore not statistically significant.

The Fischer test yielded a 2-tailed P-value of 0.0599 for the samples with *svyše poloviny* and *menee poloviny*. The association between the qPP or qAP and the form of the predicate is not statistically significant.

Since the choice of the form of predicate does not depend on the kind of the approximative marker, the average value for the data relating to the qPPs and qAPs with the words *polovina* or *tret'* can be estimated. The average figures are shown in Table 2.

The probability of semantic agreement and default agreement for qPPs and qAPs that include the word *polovina* seems to be almost equal, with agreement in the plural being somewhat more likely. The probability of semantic agreement for qPPs and qAPs that include the word *tret'* is evidently higher than the default probability. But predicate agreement for qPPs and qAPs with both quantifiers shows the same tendency towards plural forms, as the Chi-squared test with Yates' correction confirms. (The Chi-squared value is 0.693 with 1 degree of freedom, and the two-tailed P-value is 0.4051. The association between, on the

Table 2 Predicate agreement with quantifier phrases containing an approximative marker and the words *polovina / tret'* (average value)

Predicate	Approximative marker + <i>polovina</i>	Approximative marker + <i>tret'</i>
Singular neuter	47% (178)	41% (44)
Singular feminine	0.3% (1)	2% (2)
Plural	52.7% (200)	57% (61)
Total	100% (379)	100% (107)

one hand, a quantifier with *polovina* or *tret'*, and the form of the predicate on the other, is therefore not statistically significant.)

It can be stated then that on average the semantic agreement is more likely in all these sentences with an approximative marker and a quantifier *polovina, tret'*.

2.3 Full agreement (in the singular feminine) with qPPs and qAPs containing the words *polovina* and *tret'*

There are rare instances in which the predicate takes the form of the singular feminine. This use cannot be taken to be the standard one: the predicate agrees with the nouns *polovina* or *tret'*; these words both depend on the preposition or adverb and take the genitive. Thus predicate agreement with *polovina* and *tret'* in sentences with qPPs and qAPs like *okolo poloviny, bolee tret'i*, etc. seems to be non-standard.

At the same time, examples with singular feminine forms of the predicate are important for understanding the regularities of predicate agreement with quantified phrases that include an approximative marker and a quantifier-noun.

Mel'čuk argues that the head of a qPP or qAP is the approximative marker (preposition, adverb etc.). But, as Mel'čuk shows, these types of quantified phrases have a peculiarity; namely, that the head (the approximative marker) can be omitted in the tree of the prepositional-case connection (see example 18 in Mel'čuk 1985, p. 368). Babby (1985, pp. 99–100) also states that there is a possibility of the preposition *okolo* or the entire PP '*okolo* + numeral' in phrases with the structure '*okolo* + numeral + noun' that have quantitative meanings to be omitted.

To return to our discussion of instances in which the predicate is in the singular feminine, we have reason to suppose that speakers seem to use the opportunity to omit the approximative marker. That is why the predicate agrees with *polovina* or *tret'* in the singular feminine, cf. (4) and (5):

- (4) Segodnja *okolo tret'i rasxodov* systemy ne *obespečena* den'gami. (= (3))
 'Today about a third of the expenses of the system are not secured in currency.'
 Compare: *Tret' rasxodov* systemy ne *obespečena* den'gami.
 'A third of the expenses of the system are not secured in currency.'
- (5) *Bolee poloviny stoimosti sdelki byla pokryta* postavkami rossijskogo palladija.
 'More than half of the transaction value was covered by Russian palladium supplies.'
 (Vnešnie priobretenija. *Metally Evrazii*. 2004.12.17)
 Compare: *Polovina stoimosti sdelki byla pokryta* postavkami rossijskogo palladija.
 'Half of the transaction value was covered by Russian palladium supplies.'

The choice of the singular feminine form is also influenced by word order. The precedence of the subject supports semantic predicate agreement if both semantic and default agreement are

Table 3 Predicate agreement with quantified phrases that include an approximative marker^a

Predicate	Subject		
	Approximative marker + numeral	Approximative marker + <i>polovina</i>	Approximative marker + <i>tret'</i>
Singular neuter	67% (944)	47% (178)	41% (44)
Singular feminine	0	0.3% (1)	2% (2)
Plural	33% (464)	52.7% (200)	57% (61)
Total	100% (1408)	100% (379)	100% (107)

^aTable 3 shows the average values for samples with the words *polovina* and *tret'* (see Table 2)

possible, as Corbett (1998) has proved. In the instances (4) and (5), the predicate agreement is syntactical (full). It is obviously ‘more semantic’ than the default agreement, which is also possible here. Semantic predicate agreement in the plural would only be probable in (4). In (5), the singular form of the noun *stoimost'* in the qPP prevents plural agreement. The word order is significant in these instances because of the difficulty of syntactic agreement under inversion (precedence of predicate):

(4') *Den'gami ne obespečena okolo treti raschodov systemy.

(5') *Postavkami rossijskogo palladija byla pokryta bolee poloviny stoimosti sdelki.

A predicate which precedes the qPP or qAP coordinates primarily with the nearest (i.e. the first) word of the quantified phrase, which is the approximative marker. Thus agreement in the singular feminine is not possible here. It should be noted that examples with a predicate in the singular feminine which precedes a qPP or qAP with the words *polovina* or *tret'* have not been detected in the RNC.

3 Predicate agreement with qPPs or qAPs that include the words *polovina / tret'* vs predicate agreement with other quantified phrases

3.1 Predicate agreement with qPPs or qAPs that contain the words *polovina / tret'* vs predicate agreement with qPPs or qAPs that contain a numeral

The predicate agrees with qPPs or qAPs that contain a numeral (*okolo desjati čelovek* ‘around ten persons’) either in the default singular neuter form or in the plural. Unlike predicate agreement with quantified phrases, such as *okolo poloviny, bolee treti*, etc., in sentences with qPPs or qAPs that contain a numeral, the predicate is more likely to take the singular neuter form, cf. (6):

(6) V gonočnom otdelenii Gilera *rabotalo okolo pjatidesjati specialistov* vysočajšej kvalifikacii.

‘More than fifty specialists with the highest qualifications work for Gilera’s racing department.’ (M. Jaroslavlev. *Prevratnosti sud'by. Formula*. 2002.04.15)

The singular neuter forms of the predicate are approximately twice as frequent as plurals (see Table 3).

The Pearson's Chi-squared test shows that the difference in the ratio of plural and singular neuter predicate forms in the samples with the quantifiers *polovina*, *tret'* and numerals is significant.² The Chi squared value with Yates' correction is 68.6, with 2 degrees of freedom, and the two-tailed P-value is less than 0.0001. The association between the type of quantified phrase and the choice of the form of the predicate is considered to be statistically significant. The strategy of agreement noticeably depends on the type of quantified phrase.

3.2 The problem of predicate agreement with quantified phrases that include an approximative marker

Intuitively, one would expect that the predicate should agree by default with a quantified phrase that includes an approximative marker, since the head of the quantified phrase is a preposition or a comparative adverb, which has no grammatical form of number or gender. Thus, it would be expected that the choice and the distribution of the agreement strategies should be the same with any quantified phrase that contains an approximative marker. But in reality the picture is more complicated. According to the data from the RNC, the predicate is more likely to display a default agreement with qPPs and qAPs that include a numeral (see Table 3).

The predicate is more likely to take the plural (that is, be in semantic agreement with it) in sentences with qPPs and qAPs that contain the words *polovina*, *tret'* (see Tables 3 and 1).

The question is: Why are the tendencies in predicate agreement with similar qPPs and qAPs so different?

Researchers agree that the syntactic structure of a quantified phrase with an approximative marker is complex. As mentioned above, Mel'čuk has convincingly shown that a key feature of these kinds of quantified phrases is that the approximative marker can be omitted despite the fact that it is a head of the quantified phrase (Mel'čuk 1985, pp. 366–368). Babby argues that the preposition or the preposition and the quantifier (numeral) can be omitted in a noun phrase (in Babby's terms), which has a quantitative meaning (Babby 1985, pp. 99–100). The ambiguous structure in the quantified phrase can cause fluctuations in the choice of the form of the predicate. An example of the omission of the approximative marker, in our opinion, is provided by sentences with a predicate that agrees in the singular feminine with qPPs and qAPs that include the words *polovina* and *tret'* (see Sect. 2.3). In these cases the predicate coordinates with the quantifier (*polovina* or *tret'*) in the singular feminine. On this basis it can be argued that the quantifier, as well as the approximative marker, influences the choice of the predicate.

Thus, there are reasonable grounds to suppose that the choice of agreement strategies in sentences with the qPPs and qAPs *okolo / bolee / menee poloviny*, *okolo / bolee / menee treti*, *okolo / bolee / menee* + numeral, etc., depends on the properties of the quantifier.

When referring to the connection between predicate agreement and the type of quantifier, we should also take predicate agreement with noun phrases headed by *polovina*, *tret'* or a numeral (without an approximative marker) into consideration, for example:

- (7) *Polovina studentov uexala / uexali na kanikuly.*
'Half of the students left for the holidays.'
- (8) *Tret' stixotvorenij ne byla izdana / ne byli izdany.*
'A third of the poems were not published.'

²The statistics were obtained using the calculator which is available at: <http://statpages.org>.

- (9) V sorevnovanii učastvovali / učastvovalo pjatnadcat' sportsmenov.
'Fifteen athletes took part in the competition.'³

Researchers (Suprun 1961, 1965; Corbett 1979a) indicate that the particular features of predicate agreement with a noun phrase which is headed by or includes a quantitative word is conditioned by the mixed morphosyntactic properties of these types of words. Krasovitsky et al. (2010), expanding on Suprun's ideas, have convincingly shown that numerals have features of both adjectives and nouns and, depending on the degree to which adjectival or noun features come into play, the predicate's form is determined by the semantics of the whole NP 'quantifier word + noun' and either takes the plural form (as is the case for numerals that are close to adjectives, such as *dva*, *tri*, *četyre*) or coordinates the form with the quantifier and takes the singular form (as is the case for numerals relating to numbers greater than five, *pjat'*, the words *neskol'ko*, *mnogo*, *malo* and, particularly, nouns such as *časť* 'part', *rjad* 'row', etc.) (Krasovitsky et al. 2010, pp. 117–118; see also Corbett 1979a, pp. 71, 80).

The adjective-like behavior of the quantifier weakens its ability to serve as the head of a noun phrase (Corbett 1979a, p. 80).

It is exactly because quantifier words are grammatically heterogeneous that the syntactic structure of noun phrases that include a quantifier is so complicated. Without going into the details of the still-controversial issues surrounding the grammar relating to heads of quantifiers (for modern approaches see Mel'čuk 1985; Corbett 1993), we follow Corbett, whose point of view seems to be the most balanced and relevant to our research: "We must, however, recognize that the head-position is a gradient notion, since case affects the degree to which the head shows head-like properties" (Corbett 1993, p. 32).

When applied to the issue of predicate agreement, this means that "their behavior [i.e., that of numerals and other quantifiers—Y. K.] depends on the degree of 'nouniness'; the three main types are those very much like adjectives (*odin*, *nekotorye*), intermediate quantifiers (*pjat'*, *neskol'ko*), and noun-like quantifiers (*tysjača*, *rjad*)" (Corbett 1979a, p. 80). This is fully confirmed by our observations regarding predicate agreement with many quantified subjects.

In this regard, the qPPs and qAPs *okolo / bolee / menee poloviny*, *okolo / bolee / menee tret'i*, *okolo / bolee / menee* + numeral are different. The quantifiers which are included in qPPs and qAPs have different morphosyntactic properties. The words *polovina* and *tret'* are nouns, and determine the form of the predicate to a 'greater degree' than numerals do, as numerals have no number and gender and combine features of nouns and adjectives.

The differing properties of the nouns *polovina* and *tret'* on the one hand, and numerals on the other hand, are apparent in the rules of predicate agreement with these quantified phrases.

The predicate mostly agrees with noun phrases headed by *polovina* or *tret'* in the singular feminine (grammatical, full agreement), cf. (10) and (11). According to the RNC, in samples of sentences with the word *polovina* from the period 2000–2014, the probability of a singular feminine predicate is 89%, and the probability of a plural predicate is 11%. In sentences with the word *tret'* the probability of a singular feminine predicate is 76%, and the probability of a plural predicate is 24%.⁴

- (10) Tak, *polovina semej* poselka Asino živet s dohodov ot prodaži berestjanyx izdelij.
'So, half of the families in the village Asino lives on profits from the sale of birch workpieces.'
(N. Kononov. Podnožnyj biznec. *Ėkspert*. 2004.12.17)

³The examples (7)–(9) are my own—J. K.

⁴Kuvšin'skaja, Ju. M. Predikativnoe soglasovanie s imennymi gruppami, vozglavl'jajemymi slovami *rjad*, *polovina*, *časť*, *množestvo*. *Vestnik Tomskogo gosudarstvennogo universiteta* (in press).

Table 4 The predominant type of agreement in sentences with quantified phrases with an exact or an approximate meaning

<u>Polovina, tret'</u>	<u>Bolee / <i>svyše poloviny</i>, okolo / bolee / menee treti</u>
Syntactic / semantic /*default	Semantic / default
<u>Numeral</u>	<u>Okolo / bolee / <i>svyše</i> + numeral</u>
Semantic / default	Semantic / <u>default</u>

Underlines indicate the predominant agreement type.

- (11) [...] *tret'* *studentov* kinofakul'teta nikogda *ne slyšala* o Tarkovskom ili Paradžanove!
'A third of the students of the film department has never heard about Tarkovskij or Paradžanov.'

(V. Kičin. "Menja ne nado dumat'. Menja nado čuvstvovat'". Vaclav Nižinskij. . .
Izvestija. 2001.10.17)

In the plural, the predicate predominantly agrees with numerals (semantic agreement), cf. (12); see also Gaudina et al. (1976, p. 28), Corbett (1998). According to the RNC, in the samples with numerals from the period 2000–2012, the predicate takes the plural in 71% of instances and takes the singular neuter in 29% of instances (Kuvšinskaja 2013).

- (12) Segodnja v SŠA uže *živut sorok millionov nezastraxovannyx graždan* iz srednix sloev.
'Today, in the USA, already four million citizens from the middle class live uninsured.'
(O. Vlasova. Recept vseobščego blagosostojanija. *Ėkspert*. 2004.12.20)

Thus, grammatical (full) agreement is typical for the noun phrases headed by *polovina* and *tret'*, but semantic agreement is possible in rare contexts. Semantic agreement is typical for noun phrases with numerals, but default agreement is possible as well.

To understand the rules for determining the choice of predicate agreement according to various properties of the quantifier, we have assembled a chart showing the changes of the predominant type of agreement—moving from sentences with quantified phrases headed by the nouns *polovina* and *tret'* or numerals, to sentences with quantified phrases headed by *okolo*, *bolee*, etc. (see Table 4).

The chart shows that the following hierarchy of agreement type is observed, depending on the grammatical features of the head (distinguished primarily on the level of gender and number characterization and whether the grammatical behavior approximates that of nouns or adjectives and allows a word to serve as a phrase head with all the relevant functions):

1. syntactic;
2. semantic (if for some reason there is no syntactic agreement or if semantic agreement is required to express certain types of meaning);
3. default (if syntactic or semantic agreement is impossible or if it is required to express certain types of meaning).

Overall, this hierarchical order is in line with the core patterns of predicate agreement in Russian: the typical pattern is alignment of the dependent word to the head word in terms of gender and number (and person) (Corbett 1998, p. 3; Skoblikova 2005, pp. 175–176), i.e. syntactic / grammatical agreement (based on form). For cases in which the form is less clear, the agreement of the predicate is based on the semantic meaning. The default agreement is used in cases when the head of a quantified phrase has no features of gender and number so that the grammar form of the head is not clear and the predicate takes neuter singular (Corbett 1986, pp. 1003–1005). Thus, the predicate takes the most specified form if the agreement is grammatical (full), and the least specified form in case of a default agreement.

This means that in sentences including qPPs and qAPs with the words *okolo / bolee / menea poloviny* and *okolo / bolee / menea tretj*, semantic agreement is chosen as the less definite type of predicate agreement in contrast to the syntactic (grammatical) agreement that is typical for noun phrases headed by the words *polovina* or *tret'*. Semantic agreement with noun phrases headed by *polovina* or *tret'* is possible as well, but less probable. Default agreement, which is less-specified than semantic agreement, is possible with qPPs and qAPs that include the words *polovina* or *tret'*.

In sentences in which the subject includes a numeral, such as *bolee desjati studentov*, due to the fact that the head of the quantifier phrase is not characterized in terms of gender or number, the singular neuter predicate is usually chosen, as it is a less specified form than the plural form that is typical for sentences with quantified phrases headed by a numeral (*prišli desjat' studentov* 'ten students came').

Actually the rules that are described above are tendencies whose occurrence may be supported or prevented by any number of contextual factors.

4 Factors influencing the choice of predicate form in sentences with quantifier phrases containing an approximative marker and the words *polovina* and *tret'*

There are a number of contextual factors that influence the choice of the number of the predicate for sentences in which the subject is represented by quantifier phrases. Corbett convincingly shows that the most important factors are the animacy of the referent of the noun phrase and word order (Corbett 1998). Other significant influencing factors are the meaning of the predicate (Skoblikova 1969, pp. 467–470; Robblee 1993a, 1993b; Golub 2008, p. 372; Rozental' 2010, p. 260), the presence of conjoined (homogeneous) subjects and/or predicates in a sentence (Golub 2008, p. 372; Rozental' 2010, p. 259), etc. (for more details about context factors see Gvozdev 1965; Gorbačevič 1978; Corbett 1998; Nikunlassi 2002; Skoblikova 2005; Golub 2008, p. 372; Rozental' 2010, p. 260; Bel'čikov 2012; Kuvšinškaja 2013).

According to RNC data, the choice of the form of the predicate in sentences with qPPs and qAPs that include the words *polovina* and *tret'* is influenced by the same factors as in other sentences with quantified phrases, i.e. the factors listed above. In this paper we describe the effect of some of them, such as animacy, word order and topical (theme–rheme) structure.

4.1 Animacy

As the data from the RNC show, if the referent of a quantifier phrase is animate,⁵ cf. (13), the predicate will most likely be in the plural, and if the referent is inanimate, the singular neuter⁶ would be expected in most cases, cf. (14):

- (13) Po dannym fonda 'Obščestvennoje mnenie' (FOM), *bolee tretj graždan Rossii opasajutsja*, čto mogut ostat'sja bez raboty [. . .].

'According to the fund "Public Opinion," more than a third of Russian citizens fear that they could lose their job.'

(Rustem Faljaxov. <http://www.rbcdaily.ru/2009/03/17/focus/406252.shtml>. 2009)

⁵Throughout the rest of this paper we will use the term 'animate subject' to indicate that the QP's referent is animate.

⁶See Tables 5 and 6 for the feminine form.

Table 5 Influence of animacy on predicate agreement with quantifier phrases, containing an approximative marker and *polovina*

Predicate	Subject							
	<i>Bolee poloviny</i>		<i>Menee poloviny</i>		<i>Okolo poloviny</i>		<i>Svyše poloviny</i>	
	Animate	Inanimate	Animate	Inanimate	Animate	Inanimate	Animate	Inanimate
Singular	21% (25)	81% (81 + 1 sg.f.)	50% (9)	92% (11)	22% (9)	76% (44)	0	100% (2)
Plural	79% (104)	29% (32)	50% (9)	8% (1)	78% (32)	24% (14)	100% (7)	0
Total	100% (118)	100% (100 + 1)	100% (18)	100% (12)	100% (41)	100% (51)	100% (7)	100% (2)

Table 6 Influence of animacy on predicate agreement with quantifier phrases containing an approximative marker and *tret'*

Predicate	Subject					
	<i>Bolee tret'i</i>		<i>Menee tret'i</i>		<i>Okolo tret'i</i>	
	Animate	Inanimate	Animate	Inanimate	Animate	Inanimate
Singular	30.4% (17)	66.7% (28)	29% (1 + 1 sg.f.)	60% (3)	30.4% (7)	48% (10 + 1 sg.f.)
Plural	69.6% (39)	33.3% (14)	71% (5)	40% (2)	69.6% (16)	52% (11)
Total	100% (56)	100% (42)	100% (7)	100% (5)	100% (23)	100% (21 + 1)

(14) V seredine 60-x godov na IL-18 *vypolnjalos' okolo poloviny vsekh passažirskix perevozok strany.*

'In the mid-60s, more than half of all air passenger traffic in the country was carried by the IL-18.'

(G. Novožilov. 'Il'jušin—ėto javlenie... *Vestnik aviacii i kosmonavtiki.* 2004.04.28)

The rare occurrences in which the predicate is in the singular feminine in the past tense were not included in the statistics shown in the Tables 5 and 6; we should, however, mention that in all such occurrences there was an inanimate subject.

In sentences with the word *polovina* the association between the animacy of the noun in qPP or qAP and the form of the predicate is considered to be statistically extremely significant according to the Chi-squared test with Yates' correction and Fisher's exact test.⁷ The Chi-squared value is 64.829 with 1 degree of freedom, and the two-tailed P-value is less than 0.0001 for the samples containing *bolee poloviny*. For the sample with *menee poloviny*, Fisher's exact test shows, a two-tailed P-value of 0.0235, which is statistically significant. For sentences with *okolo poloviny* the two-tailed P-value is less than 0.0001, which is extremely significant as well.

As for sentences including the word *tret'*, an statistically highly significant correlation was found for the sample with *bolee tret'i*. Fisher's exact test shows a two-tailed P-value of 0.0005. The other samples, with *menee tret'i* and *okolo tret'i*, do not contain enough data to allow a conclusion to be drawn about statistical significance for the correlation between animacy and the choice of the form of the predicate.

⁷The statistics were obtained using the calculator available at <http://graphpad.com/quickcalcs/contingency2>.

Table 7 Influence of word order on the predicate agreement with quantifier phrases, containing the word *polovina*

Predicate	Subject							
	<i>Bolee poloviny</i>		<i>Menee poloviny</i>		<i>Okolo poloviny</i>		<i>Svyše poloviny</i>	
	SP	PS	SP	PS	SP	PS	SP	PS
Singular	35% (64 Sg.n. + 1 Sg.f.)	70% (40)	36% (5)	91.7% (11)	39% (28)	92.6% (25)	25% (2)	0
Plural	65% (121)	30% (17)	64% (9)	8.3% (1)	61% (44)	7.4% (2)	75% (6)	100% (1)
Total	100% (185)	100% (57)	100% (14)	100% (12)	100% (72)	100% (27)	100% (8)	100% (1)

Subject–predicate word order—SP; predicate–subject word order—PS.

Despite the obvious influence of animacy on the choice of the form of the predicate, it is possible that a non-typical predicate form will be chosen (e.g., singular forms if the quantified phrase includes an animate noun, cf. (16), or plural forms although the referent of the quantified phrase is inanimate, cf. (15)):

- (15) [...] *bolee poloviny truboprovodov proslužili uže bolee 20 let.*
 ‘More than half of the pipelines have served more than 20 years.’
 (A. Savel’eva. Identifikacija i straxovanie... *Gazovaja promyšlennost’*.
 2004.08.25)
- (16) Tak, *okolo tretí našix graždan gotovo otpravitsja v Stranu vosxodjaščego solnca na vosstanovitel’nye raboty.* (= 2)
 ‘So, about a third of our fellow citizens are ready to come to the land of the rising sun for restoration work.’

4.2 Word order

Statistical data convincingly demonstrate that the choice of the form of the predicate depends on word order in sentences with quantifier phrases including *bolee / menee / svyšě + polovina* or *tret’* (see Tables 7 and 8).

The correlation between word order and the choice of the form of the predicate is statistically significant in sentences with the word *polovina*. For the sample with *bolee poloviny*, the Chi-squared value is 21.082 with 1 degree of freedom, and the two-tailed P-value is less than 0.0001. Fisher’s exact test shows a two-tailed P-value of 0.0053 for the sample with *menee poloviny*, and for sentences with *okolo poloviny*—the two-tailed P-value is less than 0.0001.

For instances with the word *tret’*, Fisher’s exact test confirms that the association between the word order and the choice of the form of the predicate is statistically highly significant for the samples with *bolee tretí* and *okolo tretí*. The two-tailed P-value is 0.0071 for the sample with *bolee tretí* and 0.0002 for the sample with *okolo tretí*. As for sentences with *menee tretí*, the data are insufficient to allow a statistical conclusion.

In OVS sentences, the predicate precedes the subject, i.e. it is followed directly by an approximative marker, which is followed by *polovina* or *tret’* and a countable noun. As a result, the choice of the predicate form is predominantly driven by the approximative marker that is the head of the quantified phrase. This is the driving force behind the tendency to choose the singular neuter form for the predicate:

Table 8 Influence of word order on predicate agreement with quantifier phrases, containing the word *tret'*

Predicate	Subject					
	<i>Bolee tret'</i>		<i>Menee tret'</i>		<i>Okolo tret'</i>	
	SP	PS	SP	PS	SP	PS
Singular	34% (13)	81% (9)	43% (3 Sg.n. + 1 Sg.f.)	25% (1)	22% (7 Sg.n. + 1 Sg.f.)	84,6% (11)
Plural	66% (25)	19% (2)	57% (4)	75% (3)	78% (25)	15,4% (2)
Total	100% (38)	100% (11)	100% (8)	100% (4)	100% (33)	100% (13)

(17) Vpročem, akcii protesta *podderživaet bolee tret' graždan* [...].

'However, more than a third of the citizens support the protests.'

(V. Kulik and B. Dubin. Rossija i Ukraina:... *Neprikosnovennyj zapas*.
2003.03.16)

In sentences with SVO word order, the countable noun immediately precedes the predicate, which probably makes it more likely that the verb form will be influenced by the meaning of plurality expressed by the quantified phrase as a whole and, in particular, by the countable noun:

(18) *Svyše poloviny požilyx ispytyvajut* materialnye trudnosti [...].

'More than half of the elderly face financial difficulties [...].'

(Ja. M. Berger. Social'naja podderžka... *Problemy Dal'nego Vostoka*.
2002.04.29)

It is important to point out that, for the kind of sentences we are examining, SVO word order is more typical: 75% of examples including the word *polovina* and 72% of examples including the word *tret'* have SVO word order, which should favor the plural (semantic) agreement in the sentences under consideration. A non-typical form of sentence organization seems to take precedence here.

4.3 Theme–rheme-structure

The influence that word order exerts on predicate agreement indicates that strategies of predicate agreement tend to be determined by pragmatic and communicative factors, primarily by the topical (theme–rheme) structure⁸ of a statement, as word order is one of the principal means by which topical structure is expressed.

The impact of communicative sentence structure on predicate agreement in sentences with numeral phrases was investigated by E. S. Sokolova, who proved that the predicate takes the plural if the quantified phrase is 'characterized' (topic, theme), but that there are fluctuations

⁸We use the terms 'theme' and 'rheme' as they are used in the Russian linguistic tradition, firstly in the works of T. E. Janko, as well as in the works of I. I. Kovtunova and other scholars (Kovtunova 1976, pp. 44–47; Padučeva 1984; Mel'čuk 1995, p. 194; Zolotova, Onipenko, Sidorova 1998, p. 378; Janko 2001, pp. 23–34). Rheme is understood, after Janko, as a constituent component of a statement that is reported about the topic, and theme is thought to be a non-constituent component, the starting point. So 'theme' and 'rheme' are similar to, but do not completely coincide with, the concepts 'the known' and 'the new', 'topic' and 'focus', and 'topic' and 'comment' (see more details in Janko 2001). There is moreover some difference in how the terms 'topic' and 'focus', and 'topic' and 'comment' are interpreted by different researchers. In this paper we use terms 'theme' and 'topic', and 'rheme' and 'focus' as synonyms, implying that the theme is a starting point and the rheme is a reported component of a statement.

Table 9 Influence of the theme–rheme-structure on predicate agreement with quantified phrases containing *bolee poloviny* and *bolee tretí*

Predicate	Subject			
	<i>Bolee poloviny</i>		<i>Bolee tretí</i>	
	Theme	Rheme	Theme	Rheme
Singular neuter	36.5% (66)	64% (41)	37% (13)	69% (11)
Singular feminine	0.5% (1)			
Plural	63% (114)	36% (23)	63% (22)	31% (5)
Total	100% (181)	100% (64)	100% (35)	100% (16)

in the choice of the predicate form if the quantified phrase is ‘characterizing’ (rheme, focus). In these cases the predicate can take either the singular or plural form (Sokolova 1998).

Our analysis of the role played by the communicative structure in the choice of predicate form in sentences with the words *neskol’ko* ‘a few’, *stol’ko* ‘so much / so many’, *mnogo* ‘much / many’, *nemalo* ‘quite a lot’ confirms that the topical structure of sentences influences predicate agreement. It has been found that, in general, the topical position (i.e. in the theme) of the subject favors plural agreement, while the focus position (i.e. in the rheme) favors singular agreement (Kuvšinskaja 2015).

Below we will consider the influence of the topical structure on predicate agreement in sentences with prepositional and adverbial quantified phrases with an approximative meaning.

The analysis of the theme–rheme structure involves examination of context and intonation and the determination of which word bears accent in a statement, so it is difficult to work with large amounts of data. Therefore the field of our study was limited to two samples: sentences with *bolee poloviny* and with *bolee tretí*. At first we considered the position of the quantified phrase in the topical structure, in the field of theme or rheme, and the dependence of the form of the predicate on the position of the subject in the theme–rheme structure.

The data from the RNC show that the theme–rheme structure of statements with the quantified phrases *bolee poloviny* and *bolee tretí* influences the predicate agreement (see Table 9).

Fisher’s exact test shows that the correlation between the position of the quantified phrase *bolee poloviny* and the choice of the predicate form is statistically highly significant, with a two-tailed P-value of 0.0002. As for sentences with *bolee tretí*, the association is not statistically significant, with a two-tailed P-value of 0.0681. The amount of data seems to be insufficient to allow reliable statistical conclusions, however, and the percentage ratio tends to suggest that the choice of predicate depends on the subject position in the theme–rheme structure of the statement.

The percentage ratio further shows that the influence of the position of the quantified phrase in the theme or rheme of a predicate agreement is polar: the frequency of plural agreement with a thematic subject is almost equal to the frequency of singular agreement with a rhematic subject (see Table 9).

If the quantified phrase is the rheme, i.e. focus or center of a statement, then the statement reports the number of objects (see sentences (19) and (20) below). The predicate mainly takes the singular neuter (default form) because it syntactically coordinates with the quantified phrase, headed by an approximative marker:

- (19) V etix devjati stranax, takim obrazom, | predstavleno bolee poloviny jazykov, suščestvujuščix sejčas na našej planete.

'In these nine countries, therefore, more than half of all the languages now existing on our planet are represented.' (obobščennyj. *Kunstkamera. Nauka i žizn'*. 2007)

- (20) Naprimer, v sisteme britanskogo Forin offisa na učastkax, svjazannyx s torgovo-ekonomičeskim sotrudničestvom, | *truditsja bolee treti ot obščego čisla zagranrabortnikov.*

'For example, more than a third of the total number of foreign workers are employed in the British Foreign Office in the areas related to trade and economic cooperation.'

(A. I. Denisov. Vystuplenie... *Diplomatičeskij vestnik*. 2004.06.29)

If the quantified phrase is a theme, then the predicate often is a rheme, so that the action or the properties of the number of objects are in focus. The predicate semantically agrees with the quantified phrase in such cases, see (21), (22):

- (21) Za poslednie desjat' let park avtobusov sokratilsja v Samarskoj oblasti počti na 20%. Po dannym ekspertov, k nastojaščemu vremeni bolee treti avtobusov v Samarskoj oblasti | podležat spisaniju, a minimal'naja potrebnost' v novyx mašinax sostavljaet 250–300 edinic.

'Over the past ten years the bus fleet in the Samara region decreased by almost 20%. According to the experts, by now more than a third of the buses in the Samara region are to be withdrawn, and the minimum requirement for new vehicles is 250–300 units.'

(E. Selezneva. Ponaexali vsjakie. *Delo* (Samara). 2002.10.23)

- (22) [...] korpus bjurokratov raset iz goda v god. Na načalo nynešnego goda armija činovnikov sostavljala 1 mln 340 tysjač (bez silovyx vedomstv). Bolee poloviny federalnyx ministerstv | imejut filijaly po vsej strane.

'The number of bureaucrats is growing from year to year. At the beginning of this year the army of officials amounted to 1.34 million (excluding security agencies). More than half of the federal ministries have branches all over the country.'

(A. Kolesnikov et al. Neistrebimye i nesokraščaemye [...]. *Izvestija*. 2001.06.27)

In the sentence with a singular feminine predicate the subject was the theme. Here plural agreement is not possible as the noun *stoimost'* is singular. So the author of the text preferred full agreement to default agreement.

- (23) *Bolee poloviny stoimosti sdelki | byla pokryta* postavkami rossijskogo palladija.

(= 5)

'More than half of the transaction value was covered by Russian palladium supplies.'

Statistics related to the effect of word order on the choice of predicate form seem to be similar to those relating to the influence of theme–rheme structure of the statement on predicate agreement. For instance, the predicate generally agrees with the topical quantified phrase *bolee poloviny* in either the singular neuter (36.5% of instances) or in the plural (63% of instances). An analogous ratio of singular neuter and plural forms of the predicate is found in the sample of sentences in which *bolee poloviny* precedes the predicate (with 35% of examples agreeing in the singular neuter and 65% in the plural). Conversely, the predicate agrees with the rhematic quantified phrase *bolee poloviny* in the singular neuter (64%) or in the plural (36%) and the ratio of the forms of the predicate is statistically close to that which was found for the sample in which the predicate precedes the quantified phrase *bolee poloviny* (70% of examples agreeing in the singular neuter and 30% in the plural). However complete statistical coincidence does not exist. There are cases in which the theme–rheme structure is expressed not by word order, but by intonation:

Table 10 Influence of theme–rheme-structure on predicate agreement with the quantified phrase ‘*bolee + numeral*’

Predicate	Subject	
	<i>Bolee + numeral</i>	
	Rheme	Theme
Singular neuter	70% (232)	17% (7)
Plural	30% (98)	83% (35)
Total	100% (330)	100% (42)

(24) Sejščas uslovija restrukturizacii ne vypolnjajut te kompanii, kotorye uže fizičeski ne mogut pogasit’ sobstvennyje dolgi,—skazal “Izvestijam” general’nyj direktor kompanii “Patera” Sergej Parxomenko.—Blagodarja boleee mjagkim uslovijam | ne boleee tretii predprijatij | vyberutsja iz èkonomičeskoj jamy.

‘Now those companies that are already physically unable to repay their own debts do not fulfill the conditions for the restructuring,—the CEO of ‘Patera’ Sergej Parxomenko told Izvestija.—Due to the less harsh conditions no more than one third of enterprises will be out of the economic hole.’

(E. Vyxoxoleva. Bankrotstvo po-bystromu [. . .]. *Izvestija*. 2002.11.28)

The subject is the rheme in this instance. At the same time the word order not only conveys the communicative structure of the statement but also has independent significance for the predicate agreement. The speech is arranged linearly, so that the word order conditions the impact of the part of the quantified phrase that is nearest to the predicate on the form of the predicate.

In general a tendency towards plural agreement exists for in sentences in which the quantified phrases *boleee poloviny* and *boleee tretii* are the theme, and a tendency towards singular agreement exists for sentences in which the rhematic subject is consistent with what is observed in sentences with other quantifiers, particularly in instances with prepositional and adverbial phrases which include an approximative marker and a numeral (for example, *boleee desjati studentov* ‘more than ten students’).

We have analyzed the theme–rheme structure of 372 sentences with the qAP ‘*boleee + numeral*’, taken from the RNC. The data show that the theme–rheme structure greatly influences the choice of predicate form in these sentences (cf. Table 10). Fisher’s exact test confirms that the association between the position of a subject in the theme or the rheme and the choice of the form of the predicate is statistically highly significant. The two-tailed P-value is less than 0.0001.

If the quantified phrase is a rheme, the predicate tends to take the singular neuter and, moreover, the ratio of singular to plural forms of the predicate is very close to what we see in the samples with *boleee poloviny* and *boleee tretii*.

If the quantified phrase ‘*boleee + numeral*’ is a theme, the predicate tends to take the plural. In these cases, plural forms of the predicate are more frequent than in sentences in which *boleee poloviny* and *boleee tretii* are the theme. This tendency is probably conditioned by the behavior of numerals and by the rules of predicate agreement with quantified phrases containing numerals. More precisely, there is a trend to plural predicate agreement with numeral phrases (Graudina et al. 1976; Corbett 1998) and, according to Sokolova (1998), the predicate only takes the plural when agreeing with a thematic numeral phrase. There is a good reason to believe that an qAP with the approximative marker *boleee* and a numeral partly retains the features of a numeral phrase as an approximative marker can be omitted (see Sect. 4) and it influences predicate agreement.

5 Conclusion

It can be summarized that three strategies of predicate agreement (full syntactic, semantic and default) are possible in sentences with qPPs and qAPs which contain the words *polovina* and *tret'*. Semantic agreement is most probable, but default agreement is frequent as well.

The choice of the form of predicate is determined primarily by the morphosyntactic features of the quantified phrase. It is important to note that both the head of the quantified phrase (the approximative marker) and the quantifier influence predicate agreement. The approximative marker determines default agreement. The quantifier (more precisely, the quantifier phrase *poloviny / treti* + noun) favors a more specified predicate agreement than default agreement, but less specified than the type of agreement that prevails in sentences in which this quantifier is the head of a quantified phrase (*Polovina studentov uexala na kanikuly* 'Half of the students have gone on holidays').

The morphosyntactic features of quantified prepositional and adverbial phrases determine predicate agreement. At the same time the likelihood of the choice of a singular or plural form of the predicate is influenced by contextual factors. For the choice of predicate form in sentences with an approximative marker and the word *polovina* or *tret'* the same factors are significant as in sentences with other quantifiers, including: animacy, word order and topical structure.

In the sentences dealt with in this paper, the high probability of semantic agreement is supported by the prevalence of 'subject – predicate' word order and, accordingly, the position of the subject in the theme (topical position).

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