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THE COMBINATION OF VERBS AND INFINITIVES IN RUSSIAN LITERARY WORKS FROM THE END OF THE 18-th TO THE END OF THE 20-th CENTURY

СОЧЕТАНИЕ ГЛАГОЛОВ И ИНФИНИТИВОВ В РУССКИХ ЛИТЕРАТУРНЫХ ПРОИЗВЕДЕНИЯХ КОНЦА XVIII - КОНЦА XX ВЕКА

Abstract:

Previous studies of the strength of the combination of verbs and infinitives in Russian are conducted only in semantic relations, without relying on criterion that is based on form. This paper clarified the hierarchy of the strength of the combination of verbs and infinitives when they are used as compound predicate, by looking at the frequency with which a word (words) appears (appear) between verbs and infinitives in 46 literary works from the end of the 18th to the 20th century. We analyzed 8098 verb-infinitive combinations. The analysis revealed that the strength of verb-infinitive combinations is in the following hierarchy:

phase verbs > verbs combining abstract lexical meanings with a clearly expressed evaluative connotation > verbs with the meaning of attempt to implement, verbs with the meaning of thought and desire, verbs with the meaning of possibility and ability.

(‘>’ means ‘connects with infinitives more strongly than’)

And this hierarchy then reflects the restrictive and expansive relationships between verbs and infinitives in the distribution of their usage.

Keywords: "verb + infinitive", compound predicate, inserting a word (words) into "verb + infinitive", the hierarchy of the strength of the combination, polarity, aspect

Аннотация:

Предыдущие исследования силы сочетания глагола и инфинитива в русском языке проводились только в семантических отношениях, без опоры на критерий,

основанный на форме. В настоящей статье была выяснена иерархия силы сочетания глагола и инфинитива при их использовании в качестве составных глагольных сказуемых путем рассмотрения частоты, с которой слово (слова) появляется (появляются) между глаголами и инфинитивами в 46 литературных произведениях с конца XVIII по XX век. Мы проанализировали 8098 сочетаний глагола и инфинитива. Результаты нашего анализа показывают, что сила связи между основным глаголом и инфинитивом находится в следующей иерархии:

фазовые глаголы > глаголы, сочетающие в себе абстрактные лексические значения с ярко выраженным оценочным оттенком > глаголы со значением попытки осуществить, глаголы со значением мысли и желания, глаголы со значением возможности и умения.

(«>» означает «связывается с инфинитивом сильнее, чем»)

И эта иерархия затем отражает ограничительные и расширительные отношения между глаголами и инфинитивами в распределении их использования.

Ключевые слова: «глагол + инфинитив», составное глагольное сказуемое, вставка слова (слов) в «глагол + инфинитив», иерархия силы сочетания, полярность глагола, вид инфинитива

1. Introduction

The verb-infinitive combinations (hereafter abbreviated as "verb + infinitive") refers to adjunction, in which the dependent word (i.e., infinitive) is unchangeable, isolated from the case system due to its part-of-speech affiliation, and the dependence on the main word (i.e., verb) is expressed semantically. "verb + infinitive" constitutes compound predicates as shown below (The bold parts represent "verb + infinitive". INF stands for an infinitive.):

(1) Simoj **prodolzhal stojat'**. (*Voskresenie*, L.N. Tolstoj)

Simoj continued stand-INF.

[Simoj continued to stand.]

(2) Ja **staralsja voobrazit'** sebe kapitana. (*Kapitanskaja dochka*, A. S.

Pushkin)

I tried imagine-INF myself captain

[I tried to imagine the captain.]

(3) Ej **pridetsja terpet'**. (*Aptekar'*, V. V. Orlov)

her must endure-INF

[She will have to endure.]

(4) Ja bol'she ne **khochu zhit'**. (*Khozhenie po mukam*, A.N.Tolstoj)

I anymore not want live-INF

[I don't want to live anymore.]

(5) My ne **mogli vspominat'** vslux. (*Zavtra byla vojna*, B. L. Vasil'ev)

we not could remember-INF out loud

[We couldn't remember out loud.]

2. Previous studies

Previous studies of the strength of the combination of verbs and infinitives in Russian are conducted only in semantic relations, without relying on a specific formal criterion and were done based on a lexical analysis of the first component (the verb) of the predicate – the conjugated form of the verb. Let's look at some previous studies.

N. Ju. Shvedova (1970,1980) divides "verb + infinitive" into complement relationships and object relationships based on the semantic relationship between verbs and infinitives.

According to Shvedova, a) phase verbs (*nachat'* (start), *prodolzhat'* (continue), *perestat'* (stop), etc.), b) verbs with the meaning of predisposition, attempt to implement (*starat'sja* (try), *smet'* (dare), *sobirat'sja* (get ready), etc.), c) verbs combining abstract lexical meanings with a clearly expressed evaluative connotation (*prijtis'* (must), *izvolit'* (deign), *sledovat'* (should), etc.) with infinitives form complementary relationship; d) verbs with the meaning of thought, intellectual state, perception, desire (*khotet'* (want), *zhelat'* (wish), *ljubit'* (love), etc.) e) verbs with the meaning of possibility and ability (*umet'* (can), *moch'* (can), *uspet'* (succeed), etc.) with infinitives form object relationship. And Shvedova writes that when verbs and infinitives form complementary relationships and object relationships, they are strongly linked. However, she makes no mention of differences in the strength of the combination of verbs and infinitives across groups of verbs.

A.A. Bojko (1982) statistically investigates the frequency of use of perfective and imperfective infinitives, which are added to verbs according to their semantic differences. However, she does not discuss the hierarchy of the strength of the combination of verbs and infinitives.

R. D. Van Valin Jr. and W. A. Foley (1984), including "verb + infinitive" in the transformation into the serial form of the verb (verb serialization), define its syntactic bondedness hierarchy and intercausal semantic relations hierarchy. But they do not pay attention to the relationship between the degree of strength of the combination of verbs and infinitives and the distribution of "verb + infinitive" usage.

B.O Kambarova (2009) enumerates the differences in usage between Russian and Kyrgyz by dividing the verbs forming "verb + infinitive" according to their lexical meaning but does not discuss the differences in strength of the combination of verbs and infinitives due to differences in their lexical meaning.

M. A. Kholodilova (2015) writes about the auxiliary features of Russian verbs (*moch'* (can) and *khotet'* (want)) in the compound verb predicate but does not consider the hierarchy of strength of the combination of verbs and the infinitives.

V.V. Shigurov (2020) mentions the modal function of "verb + infinitive" (*khotelos' by znat'*) (I would like to know) used as parenthesis but says nothing about the hierarchy of strength of the combination of verbs and infinitives.

Z. G. Gebekov (2022) refers to the transitivity of the verbs in "verb + infinitive" but does not clarify the hierarchy of strength of the combination of verbs and infinitives.

As described above, it cannot be said that sufficient study has been done on the hierarchy of the strength of the combination of verbs and infinitives.

3. Purpose of the article

Our aim is to elucidate, using criterion that is based on form rather than on meaning, that tangibly represent the hierarchy of the strength of the combination of verbs and infinitives when they are used as compound predicate. We examine the strength of the combination of verbs and infinitives by the frequency with which a word (words) enters (enter) between the verb and the infinitive in "verb + infinitive". This criterion was proposed by M. Kitajo (2015) to clarify the hierarchy of the strength of the combination of verbs and infinitives in "verb + infinitive" used in all A.P. Chekhov's works. In this paper, we use this criterion to apply it to the works of other writers and elucidate the universality of the hierarchy of the strength of the combination of verbs and infinitives.

Let us briefly explain what it means to insert a word between a verb and an infinitive.

In examples (6) and (7) there is no intervening word between verbs (*khotel' / nachala*) and infinitives (*prodolzhit' / rasskazyvat'*) that make up compound predicates. (The bold parts represent "verb + infinitive". INF stands for an infinitive.):

(6) Mark Aleksandrovich **khotel prodolzhit'** doklad. (*Deti Arbat*, A. Rybakov)

Mark Alexandrovich wanted continue-INF report

[Mark Alexandrovich wanted to continue the report.]

- (7) Dar'ja Mikhajlovna **nachala rasskazyvat'** o kakoj-to neobyknovennoj sobake ee druga.
 Dar'ja Mikhajlovna began talk-INF about some extrsordinary dog her friend
 (Rudin, I. S. Turgenev)
 [Dar'ja Mikhajlovna began to talk about some extraordinary dog of her friend.]

But in example (8) and (9) there is an insertion of the word (dal'she / emu) between verbs (khotel / nachala) and infinitives (prodolzhat'/rasskazyvat').

- (8) Ivan Petrovich **khotel dal'she prodolzhat'**. (*Chtenie*, A.P. Chekhov)
 Ivan Petrovich wanted further continue-INF
 [Ivan Petrovich **wanted to continue** further.]

- (9) Dar'ja Mikhajlovna **nachala emu rasskazyvat'** o sebe. (*Rudin*, I. S. Turgenev)
 Dar'ja Mikhajlovna began him tell-INF about herself
 [Daria Mikhailovna began to tell him about herself.]

In relation to the frequency of word(s) between a verb and an infinitive, we consider the following: the more frequently a word (words) is (are) placed between the verb and the infinitive, the weaker the combination between the verb and the infinitive, and the less frequently a word (words) is (are) placed between a verb and an infinitive, the stronger the combination between the verb and the infinitive.

4. Material

We selected 46 literary works written in Russian from the late 18th century to the late 20th century. We then analyzed these works by dividing them into four periods: the late 18th century to the mid-19th century (Table 1), the second half of the 19th century (Table 2), the first half of the 20th century (Table 3), and the second half of the 20th century (Table 4). The rightmost capital letter in each Table indicates the abbreviation of the name of the work.

Table 1. 12 works from the late 18th century to the mid-19th century

[POD] <i>Pochta dukhov (Spirit Mail) (I. A. Krylov, 1789)</i>
[PPM] <i>Puteshestvie iz Peterburga v Moskvu (Travel from St. Petersburg to Moscow), A. N. Radishchev, 1790)</i>
[CPD] <i>Chistoserdechnoe priznanie v delakh moikh i pomyslenijakh (A sincere confession of my deeds and thoughts) (D. I. Fonvizin, 1791)</i>
[BEL] <i>Bednaja Liza (Poor Lisa) (N. M. Karamzin, 1792)</i>
[MPN] <i>Marfa-posadnitsa, ili pokorenie Novagoroda (Marfa the Mayor, or the Conquest of Novgorod) (N. M. Karamzin, 1803)</i>
[PFM] <i>Pis'ma iz Frantsii k odnomu vel'mozhe v Moskvu (Letters from France to a nobleman in Moscow) (D. I. Fonvizin, 1806)</i>
[PID] <i>Pikovaja dama (The queen of spades) (A. S. Pushkin, 1834)</i>
[NOS] <i>Nos (nose) (N. V. Gogol', 1836)</i>
[KAD] <i>Kapitanskaja dochka (The Captain's Daughter) (A. S. Pushkin, 1836)</i>
[GNV] <i>Geroj nashego vremeni (Hero of Our Time) (M. Yu. Lermontov, 1840)</i>
[MED] <i>Mertvyje dushi (vol. 1) (Dead Souls) (N. V. Gogol', 1842)</i>
[KTV] <i>Kto vinovat? (Who is guilty?) (A. I. Gertsen, 1846)</i>

Table 2. 12 works from the second half of the 19th century

[DET] <i>Detstvo (Childhood) (L.N. Tolstoj, 1852)</i>
[RUD] <i>Rudin (Rudin) (I. S. Turgenev, 1856)</i>

[SEK]	<i>Semejnaja khronika (Family Chronicle) (S. T. Aksakov, 1856)</i>
[OBL]	<i>Oblomov (part 1) (Oblomov) (I. A. Goncharov, 1859)</i>
[OBO]	<i>Obojdennye (circumvent) (N. S. Leskov, 1865)</i>
[PIN]	<i>Prestuplenie i nakazanie (part.1-2) (Crime and punishmen) (F.M. Dostoevskij, 1866)</i>
[OBY]	<i>Obryv (The cliff) (I.A. Goncharov, 1869)</i>
[GOG]	<i>Gospoda Golovlevy (Gentlemen Golovlevs) (M. E. Saltykov-Shchedrin, 1880)</i>
[CEM]	<i>Chernyj monakh (The black monk) (A.P. Chekhov, 1894)</i>
[ZAI]	<i>Za ikonoj (Behind the icon) (V. G. Korolenko, 1895)</i>
[VOS]	<i>Voskresenie (Resurrection) (L.N. Tolstoj, 1899)</i>
[DAS]	<i>Dama s sobachkoj (The lady with the little dog) (A.P. Chekhov, 1899)</i>

Table 3. 11 works from the first half of the 20th century

[SKR]	<i>Shtabs-kapitan Rybnikov (Staff Captain Rybnikov) (A. I. Kuprin, 1905)</i>
[MAT]	<i>Mat' (part 1) (Mother) (M. Gor'kij, 1906)</i>
[KPM]	<i>Khozhdenie po mukam (book 1)(The Road to calvary) (A.N.Tolstoj, 1920)</i>
[MY]	<i>My(We) (E. I. Zamjatin, 1924)</i>
[ZHP]	<i>Zheleznyj potok (Iron Stream) (A. Serafimovich, 1924)</i>
[TSE]	<i>Tsement (Cement) (F. V. Gladkov, 1925)</i>
[MIM]	<i>Master i Margarita (The Master and Margarita) (M.A. Bulgakov, 1928)</i>
[CHE]	<i>Chelovek-amfibija (Amphibian Man) (A. Beljaev. 1928)</i>
[POT]	<i>Podnjataja tselina (vol. 1) (Virgin Soil Upturned) (M.A.Sholokhov, 1932)</i>
[KLS]	<i>Kladovaja solntsa (Pantry of the Sun) (M.M. Prishvina, 1945)</i>
[PER]	<i>Pervye radosti (Early Joys) (K.A. Fedin, 1945)</i>

Table 4. 11 works from the second half of the 20th century

[DOZ]	<i>Doktor Zhivago (book 1) (Doctor Zhivago) (B. Pasternak, 1957)</i>
[DIN]	<i>Dinka (Dinka) (V. A. Oseeva, 1959)</i>
[TIP]	<i>Teni ischezajut v polden' (Shadows disappear at midday) (A. S. Ivanov, 1963)</i>
[LJU]	<i>Ljubaviny (Lubavin's) (V. Shukshin, 1965)</i>
[PAS]	<i>Paslednij srok (Deadline)(V.G. Rasputin, 1970)</i>
[RAK]	<i>Rakovyj korpus (book 1) (Cancer ward) (A.I. Solzhenitsyn, 1966)</i>
[DEA]	<i>Deti Arbata (part 1) (Children of the Arbat) (A.N. Rybakov, 1984)</i>
[ZBV]	<i>Zavtra byla vojna (Tomorrow was war) (B. L. Vasil'ev, 1984)</i>
[APT]	<i>Aptekar' (Pharmacist) (V. V. Orlov, 1988)</i>
[SLP]	<i>Shest'sot let posle binvy (Six hundred years after the battle) (A.A. Prokhanov, 1990)</i>
[UKS]	<i>Ukradennyj son (Stolen Sleep) (A. Marinina, 1994)</i>

5. Analysis of materials

5-1. The rate of word insertion into "verb + infinitive" according to the lexical meanings of the verb

Rather than randomly selecting and analyzing "verb + infinitive" from among the 46 works, we selected and analyzed "verb + infinitive" that were used uniformly throughout the 46 works. This is because the frequency of use of some verbs can change drastically over a period of around 200 years, making it difficult to perform a uniform statistical analysis of these. We divided verbs consisting of "verb + infinitive," which have been used relatively stable as compound predicates in literary works over the past 200 years, into five lexical-semantic groups (ABCDE), and extracted three frequently used verbs from each group.

A) phase verbs

nachat' (start), *prodolzhat'* (continue), *perestat'* (stop)

B) verbs with the meaning of attempt to implement

starat'sja (try), *smet'* (dare), *sobirat'sja* (get ready)

C) verbs combining abstract lexical meanings with a clearly expressed evaluative connotation

prijtis' (must), *izvolit'* (deign), *sledovat'* (should)

(There is no auxiliary verb in Russian: *prijtis'*, *izvolit'* and *sledovat'* are all verbs.)

D) verbs with the meaning of thought and desire

khotet' (want), *zhelat'* (wish), *ljubit'* (love)

E) verbs with the meaning of possibility and ability

umet' (can), *moch'* (can), *uspet'* (succeed)

We look at the frequency of use of "verb + infinitive" and the frequency of a word (words) being inserted between verbs and infinitives in four periods from the late 18th century to the late 20th century for each lexical group of verbs.

Our tables 5 through 24 have the following structure:

The letters in the top row of the table indicate the titles of literary works, and the leftmost vertical column indicates the verbs that form "verb + infinitive". The numerator of the figure indicates the number of examples in which a word (words) is (are) inserted between the verb and the infinitive in "verb + infinitive" and the denominator indicates the total number of examples of "verb + infinitive". The fraction indicates the degree to which a word (words) is (are) inserted between the verb and the infinitive.

A) phase verbs

nachat' (start), *prodolzhat'* (continue), *perestat'* (stop)

Let us explain the numbers written on each table. For example, 5/16 written next to *nachat'* on the left side of Table 5 indicates that "*nachat'* + infinitive" is used 16 times in the work POD, and a word (words) is (are) inserted into "*nachat'* + infinitive" 5 times. And the number 165 on the right side of the row for *nachat'* represents the total number of times "*nachat'* + infinitive" is used in the 12 works, and the number 33 represents the total number of times a word (words) is (are) inserted into "*nachat'* + infinitive". The other fractions are like this and indicate the number of times that each work uses the verbs and the number of times that a word (words) is (are) inserted into "verb + infinitive".

Table 5. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>nachat'</i>	5/16	4/20	2/11	0/1	2/3	0/1	0/2	1/6	3/11	4/30	6/24	6/40	33/165
<i>prodolzhat'</i>	1/4	0	0	0	0	0	0	0/1	0	0/2	1/4	0/2	2/13
<i>perestat'</i>	2/3	0/6	0/1	0	0	0	1/4	0	1/1	0/1	0/3	1/4	5/23
Total	8/23	4/26	2/12	0/1	2/3	0/1	1/6	1/7	4/12	4/33	7/31	7/46	40/201

Table 6. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>nachat'</i>	2/14	4/22	8/27	4/22	8/42	8/38	4/22	2/6	0/1	0/4	6/26	1/2	47/226
<i>prodolzhat'</i>	2/15	0/3	2/17	0/7	3/13	5/17	0/2	5/17	0/2	0/2	5/16	0/2	22/113
<i>perestat'</i>	1/12	1/6	0/9	0/3	4/14	5/13	0/8	1/5	0/2	0	3/25	0/2	15/99
Total	5/41	5/31	10/53	4/32	15/69	18/68	4/32	8/28	0/5	0/6	14/67	1/6	84/438

Table 7. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>nachat'</i>	0/1	6/33	2/36	0/1	1/3	0	2/17	14/83	4/11	0/3	3/20	32/208
<i>prodolzhat'</i>	0/1	1/2	3/17	0/1	0/2	0/3	0/1	6/31	1/1	0	2/8	13/67

<i>perestat'</i>	0/1	0/4	3/11	0/5	0/4	0/2	1/9	2/15	0/1	0/6	0/7	6/65
Total	0/3	7/39	8/64	0/7	1/9	0/5	3/27	22/129	5/13	0/9	5/35	51/340

Table 8. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>nachat'</i>	1/11	5/13	8/35	2/26	2/9	4/14	2/3	3/17	1/11	0/8	6/19	34/166
<i>prodolzhat'</i>	3/20	0	0/4	1/8	0/5	1/6	0/6	1/8	0	0/8	3/5	9/70
<i>perestat'</i>	2/16	0/5	2/14	0/8	0/1	2/5	0/2	2/9	1/6	0/4	2/9	11/79
Total	6/47	5/18	10/53	3/42	2/15	7/25	2/11	6/34	2/17	0/20	11/33	54/315

Here are some examples of "phase verb + infinitive" with a word (words) inserted (The bold parts represent "verb + infinitive". INF stands for an infinitive.):

(10) Ona **nachala** vse smlee **naskakivat'** na oratorov. (DOZ)

she started more boldly attack-INF to speakers

[She began to attack the speakers more and more boldly.]

(11) Posle etogo on **prodolzhal** s ulybkoj **privetstvovat'** Meshkova na ulitse. (PER)

after this he continued with smile greet-INF Mashkov on street

[After that he continued to greet Meshkov on the street with a smile.]

(12) Ja totchas zhe **perestaju** tebjja sestroj **schitat'**. (PIN)

I immediately stop you sister consider-INF

[I immediately stop considering you as a sister.]

Looking at the total number of verbs written on the right side of each table, the number of uses of "*prodolzhat'* + infinitive" (13 times (Table 5)) and "*perestat'* + infinitive" (23 times (Table 5)) is low in works from the late 18th century to the mid-19th century, but in other periods they are used relatively frequently ("*prodolzhat'* + infinitive": 113 times (Table 6), 67 times (Table 7), 70 times (Table 8); "*perestat'* + infinitive": 99 times (Table 6), 65 times (Table 7), 79 times (Table 8)). On the other hand, "*nachat'* + infinitive" is consistently used frequently (165 times (Table 5), 226 times (Table 6), 208 times (Table 7), 166 times (Table 8)) in works from the late 18th century to the late 20th century.

The numbers in the bottom right of each table indicate the total number of verbs used. The frequency with which a word (words) is (are) inserted into "verb + infinitive" of this group of verbs in works from four periods is as follows:

In works from the late 18th century to the mid-19th century (Table 5), the verbs (*nachat'*, *prodolzhat'*, *perestat'*) are used a total of 201 times. A word (words) is (are) inserted into the verb-infinitive combination 40 times. So, the insertion rate of a word (words) in this case is 19.9%. Similarly, when the insertion rate of a word (words) in "verb + infinitive" was calculated for other periods, the results are as follows:

19.2% (84/438) in works from the second half of the 19th century (Table 6),

15.0% (51/340) in works from the first half of the 20th century (Table 7),

17.1% (54/315) in works from the second half of the 20th century (Table 8).

The frequency (15.0%) of inserting a word (words) into "verb + infinitive" in works from the first half of the 20th century is lower than in other periods (19.9%, 19.2%, 17.1%).

Summing up these figures, the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs belonging to Group A in works from the late 18th century to the late 20th century is 17.7% (229 (= 40+84+51+54)/1294 (= 201+438+340+315)).

Next, let us look at the frequency with which a word (words) are inserted into "verb + infinitive" formed by verbs with the meaning of attempt to implement.

B) verbs with the meaning of attempt to implement

starat'sja (try), *smet'* (dare), *sobirat'sja* (get ready)

First, let's explain each table in the same way as we explain the verbs. For example, 11/26 written next to *starat'sja* on the left side of Table 9 indicates that "*starat'sja* + infinitive" is used 26 times in the work POD, and a word (words) is (are) inserted into "*starat'sja* + infinitive" 11 times. And the number 80 on the right side of the row for *starat'sja* represents the total number of times "*starat'sja* + infinitive" is used in the 12 works, and the number 28 represents the total number of times a word (words) is (are) inserted into "*starat'sja* + infinitive". The other fractions are like this and indicate the number of times that each work uses verbs and the number of times that a word (words) is (are) inserted into "verb + infinitive".

Table 9. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>starat'sja</i>	11/26	2/7	0/3	0/4	0/1	3/4	0	0	3/12	2/6	7/14	0/3	28/80
<i>smet'</i>	1/5	5/5	1/2	1/2	0/1	0/1	1/1	0	3/13	2/7	0	8/21	22/58
<i>sobirat'sja</i>	0	0	0	0	1/1	0	0	0	1/2	0/1	1/3	2/4	5/11
Total	12/31	7/12	1/5	1/6	1/3	3/5	1/1	0	7/27	4/14	8/17	10/28	55/149

Table 10. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>starat'sja</i>	3/25	3/14	9/20	2/10	10/30	13/17	3/9	7/21	0/3	0/1	3/11	0	53/161
<i>smet'</i>	1/3	1/3	5/17	1/1	3/9	7/16	1/2	2/4	0	0	0/2	0	21/57
<i>sobirat'sja</i>	0/1	1/4	0/3	0/2	1/5	1/5	1/2	2/4	0	0	0/3	0	6/29
Total	4/29	5/21	14/40	3/13	14/44	21/38	5/13	11/29	0/3	0/1	3/16	0	80/247

Table 11. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>starat'sja</i>	1/1	9/22	0/8	0/1	2/8	0/4	3/6	5/22	0	2/6	5/15	27/93
<i>smet'</i>	1/1	0/1	1/4	0/3	0/2	0/1	0	2/5	0	0	1/2	5/19
<i>sobirat'sja</i>	0/1	2/3	0/2	0	0/1	0	0/6	3/15	0/4	1/1	1/2	7/35
Total	2/3	11/26	1/14	0/4	2/11	0/5	3/12	10/42	0/4	3/7	7/19	39/147

Table 12. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>starat'sja</i>	0/11	4/10	3/10	4/8	6/15	8/15	1/3	2/6	1/4	2/10	0/7	31/99
<i>smet'</i>	1/1	1/2	0	0	1/1	1/2	0	0/5	0	0/2	1/2	5/15
<i>sobirat'sja</i>	2/12	4/5	1/7	0/3	4/11	1/4	1/3	1/5	5/8	1/3	2/8	22/69
Total	3/24	9/17	4/17	4/11	11/27	10/21	2/6	3/16	6/12	3/15	3/17	58/183

Here are some examples of "verb + infinitive" with the insertion of a word (words). The bold parts represent "verb + infinitive". INF stands for an infinitive.

(13) Zemnye zhiteli i **staralis'** menja **bespokoit'**. (POD)

earthly inhabitants and tried me disturb-INF

[The earthly inhabitants tried to disturb me.]

(14) Nikto ne **smel** blizko **podkhodit'** k nim. (SEK)

nobody not dared close approach-INF to them

[No one dared to come close to them.]

(15) Sal'vator ne **sobiralsja** etogo **delat'**. (CHE)

Sal'vator not get ready this do-INF

[Sal'vator had no intention of doing this.]

The total number of verbs is written on the right-hand side of each table. "*sobirat'sja* + infinitive" is used infrequently (11 times (Table 9)) in works from the end of the 18th century to the mid-19th century, but its frequency of use increases in works after that (29 times (Table 10), 35 times (Table 11), 69 times (Table 12)). On the other hand, "*smet'* + infinitive" remains 58 times (Table 9) and 57 times (Table 10) in frequency from the end of the 18th century to the end of the 19th century, but its frequency of use decreases dramatically from the beginning of the 20th century to the end of the 20th century (19 times (Table 11), 15 times (Table 12)). Unlike *sobirat'sja* and *smet'*, "*starat'sja* + infinitive" is consistently used frequently (80 times (Table 9), 161 times (Table 10), 93 times (Table 11), 99 times (Table 12)) in works from the late 18th century to the late 20th century.

Calculating the insertion rate of a word (words) in "verb + infinitive" formed by this group of verbs in the same way as for aspectual verbs, the frequency with which a word (words) is (are) inserted into "verb + infinitive" of this group of verbs in works from four periods is as follows:

- 36.9 % (55/149) in works from the late 18th century to the mid-19th century (Table 9),
- 32.4% (80/247) in works from the second half of the 19th century (Table 10),
- 26.5% (39/147) in works from the first half of the 20th century (Table 11),
- 31.7% (58/183) in works from the second half of the 20th century (Table 12).

Comparing the frequency of insertion of a word (words) into "verb + infinitive" in works from the four time periods, the frequency of insertion (26.5%) is lower in works from the first half of the 20th century than in the others (36.9 %, 32.4%, 31.7%).

Summing up these figures, the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs belonging to Group B in works from the late 18th century to the late 20th century is 32.0% (232 (=55+80+39+58)/726(=149+247+147+183)).

Next, let us look at the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs in Group C.

C) verbs combining abstract lexical meanings with a clearly expressed evaluative connotation

prijtis' (must), *izvolit'* (deign), *sledovat'* (should)

The way to read the table is the same as explained above. For example, 0/11 written next to *izvolit'* on the left side of Table 13 indicates that "*izvolit'* + infinitive" is used 11 times in the work POD, and a word (words) is (are) not inserted into "*izvolit'* + infinitive". And the number 66 on the right side of the row for *izvolit'* represents the total number of times '*izvolit'* + infinitive' is used in the 12 works, and the number 11 represents the total number of times a word (words) is (are) inserted into "*izvolit'* + infinitive". The other fractions are like this and indicate the number of times that each work uses verbs and the number of times that a word (words) is (are) inserted into "verb + infinitive".

Table 13. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>prijtis'</i>	0	0	0	0	0	0	0	0	0/2	0/5	2/7	0/1	2/15
<i>izvolit'</i>	0/11	0/3	2/2	0	0	0/4	1/1	0/3	6/21	0/2	1/7	1/12	11/66
<i>sledovat'</i>	0	0	0	0	0	0	0	0	0	0	1/4	0/2	1/6
Total	0/11	0/3	2/2	0	0	0/4	1/1	0/3	6/23	0/7	4/18	1/15	14/87

Table 14. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>prijtis'</i>	1/1	1/2	2/3	1/1	0/3	2/7	0/1	2/11	0/1	0	0/1	0	9/31
<i>izvolit'</i>	0/6	0/4	2/5	2/4	0	7/35	0/1	0/1	0	0	0/1	0	11/57
<i>sledovat'</i>	0/1	2/4	2/5	0/3	2/5	2/6	1/1	3/9	0	0	0/3	0	12/37
Total	1/8	3/10	6/13	3/8	2/8	11/48	1/3	5/21	0/1	0	0/5	0	32/125

Table 15. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>prijtis'</i>	0	0/1	1/5	1/9	0	0/1	4/9	11/43	0	0/2	0/1	17/71
<i>izvolit'</i>	0/1	0	1/1	0/1	0	0	0/1	0/2	0	0	0/1	1/7
<i>sledovat'</i>	0/1	0	0	0/1	0	0	0/4	1/4	0	0	1/1	2/11
Total	0/2	0/1	2/6	1/11	0	0/1	4/14	12/49	0	0/2	1/3	20/89

Table 16. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>prijtis'</i>	3/12	1/4	5/7	2/4	7/19	1/8	0/1	1/6	4/12	0	4/12	28/85
<i>izvolit'</i>	0/1	0	0/1	0	0	0	0	0	0	0	0	0/2
<i>sledovat'</i>	0/1	0	0	0/1	0/4	0	1/5	1/4	0/1	0/3	0/2	2/21
Total	3/14	1/4	5/8	2/5	7/23	1/8	1/6	2/10	4/13	0/3	4/14	30/108

Here are some examples of "verb + infinitive" with the insertion of a word (words). The bold parts represent "verb + infinitive". INF stands for an infinitive.

(16) **Pridetsja** Mikhailu **davat'** ej eshch odnu telegrammu. (PAS)

must Mikhail give-INF her more one telegram

[Mikhail will have to give her another telegram.]

(17) Ot kogo, batjushka, ty **izvolil** eto **slyshat'** ? (KAD)

from whom father you deigned this hear-INF

[From whom, father, did you hear this?]

(18) Tebe **sleduet** tak vechno **stranstvovat'**. (RUD)

You should like forever wander-INF

[You should wander like this forever.]

Looking at the total number of verbs written on the right side of each table, overall, the number of uses of "verb + infinitive" for this group of verbs is not very high.

The number of uses of "*prijtis'* + infinitive" is low (15 times (Table 13)) in works from the late 18th century to the mid-19th century, but since the mid-19th century has been increasing (31 times (Table 14), 71 times (Table 15), 85 times (Table 16)) since the mid-19th century. In contrast to *prijtis'*, *izvolit'* retains some frequency (66 times (Table 13), 57 times (Table 14)) in works from the late 18th century to the end of the 19th century, but its use has declined sharply (7 times (Table 15), 2 times (Table 16)) in works from the 20th century onwards. And the number of uses of "*sledovat'* + infinitive" is generally low (6 times (Table 13), 37 times (Table 14), 11 times (Table 15), 21 times (Table 16)) in works from the late 18th century to the late 20th century.

Calculating the rate of insertion of a word (words) into "verb + infinitive" formed by verbs in Group A and Group B using the same method, the frequency with which a word (words) is (are) inserted into "verb + infinitive" of this group of verbs in works from four periods is as follows:

16.1 % (14/87) in works from the late 18th century to the mid-19th century (Table 13),

25.6% (32/125) in works from the second half of the 19th century (Table 14),

22.5% (20/89) in works from the first half of the 20th century (Table 15),

27.8% (30/108) in works from the second half of the 20th century (Table 16).

Comparing the frequency of insertion of a word (words) into "verb + infinitive" in works from the four time periods, the frequency of insertion (16.1%) is lower in works from the late 18th century to the mid-19th century than in the others (25.6 %, 22.5%, 27.8%).

Summing up these figures, the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs belonging to Group C in works from the late 18th century to the late 20th century is 23.5.0% (96 (=14+32+20+30)/409 (=87+125+89+108)).

Next, let's look at the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs in Group D.

D) verbs with the meaning of thought and desire

khotet' (want), *zhelat'* (wish), *ljubit'* (love)

The way to read the table is the same as explained above. For example, 31/65 written next to *khotet'* on the left side of Table 17 indicates that "*khotet'* + infinitive" is used 65 times in the work POD, and a word (words) is (are) inserted into "*khotet'* + infinitive" 31 times. And the number 379 on the right side of the row for *khotet'* represents the total number of times "*khotet'* + infinitive" is used in the 12 works, and the number 150 represents the total number of times a word (words) is (are) inserted into "*khotet'* + infinitive". The other fractions are like this and indicate the number of times that each work uses verbs and the number of times that a word (words) is (are) inserted into "verb + infinitive".

Table 17. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>khotet'</i>	31/65	13/32	1/6	7/11	2/31	1/7	3/6	3/9	24/39	18/61	24/66	23/46	150/379
<i>zhelat'</i>	9/31	7/21	3/4	0	4/8	0/1	1/3	1/4	1/3	3/7	5/16	2/10	36/108
<i>ljubit'</i>	0/6	0	0	0/1	0/1	0/1	0	2/3	1/2	2/8	3/15	2/9	10/46
Total	40/102	20/53	4/10	7/12	6/40	1/9	4/9	6/16	26/44	23/76	32/97	27/65	196/533

Table 18. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>khotet'</i>	6/22	15/35	21/44	5/27	34/118	40/72	15/60	29/74	1/3	0	6/22	0	172/477
<i>zhelat'</i>	5/14	7/23	2/12	0/1	1/6	12/20	1/1	7/12	0/2	0	8/32	0	43/123
<i>ljubit'</i>	2/4	0/6	1/2	1/5	2/7	2/14	5/13	9/20	0/1	0	0	0/1	22/73
Total	13/40	22/64	24/58	6/33	37/131	54/106	21/74	45/106	1/6	0	14/54	0/1	237/673

Table 19. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>khotet'</i>	0/7	6/26	12/36	9/26	1/9	3/9	2/11	26/123	12/23	0/2	11/53	82/325
<i>zhelat'</i>	0	1/10	2/6	0/1	0/1	1/2	0/3	1/16	0	0/1	1/5	6/45
<i>ljubit'</i>	0	0/1	0/1	0	0	0	0	3/8	0/1	0	1/6	4/17
Total	0/7	7/37	14/43	9/27	1/10	4/11	2/14	30/147	12/24	0/3	3/64	92/387

Table 20. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>khotet'</i>	2/48	15/54	15/35	13/53	16/35	23/44	11/31	7/42	14/29	7/27	8/26	131/424
<i>zhelat'</i>	1/7	3/5	1/1	0/1	0	1/2	2/4	0/4	1/10	0/14	0/1	9/49
<i>ljubit'</i>	0/4	6/13	0/2	2/4	4/8	2/10	1/4	3/14	3/3	0/1	4/9	25/72
Total	3/59	24/72	16/38	15/58	20/43	26/56	14/39	10/60	18/42	7/42	12/36	165/545

Here are some examples of "verb + infinitive" with the insertion of a word (words). The bold parts represent "verb + infinitive". INF stands for an infinitive.

(19) Ja **khotel** uze **postavit'** tochku. (MY)

I wanted already put-INF dot

[I wanted to put an end to this already.]

(20) Ne **zhelaju** chasti tela vsem **pokazyvat'** (DOZ)

not wish parts body everyone show-INF

[I don't want to show my body parts to everyone.]

(21) On **ljubil** dazhe **provodit'** vremja s rebjatihkami (OBL)

he loved even spend-INF time with kids
 [He even loved spending time with the kids.]

In terms of the total number of verbs listed on the right side of each table, "zhelat' + infinitive" maintained a certain degree of frequency of use (108 times (Table 17), 123 times (Table 18)) in works from the end of the 18th century to the end of the 19th century, but its frequency of use has become extremely low (45 times (Table 19), 49 times (Table 20)) in works from the 20th century onwards. And, compared to works from other time periods (46 times (Table 17), 73 times (Table 18), 72 times (Table 20)), the frequency of use of "ljubit' + infinitive" is very low (17 times) in works from the first half of the 20th century (Table 19). On the other hand, "khotet' + infinitive" is used with high frequency (379 times (Table 17), 477 times (Table 18), 325 times (Table 19), 424 times (Table 20)) in works from the late 18th century to the late 20th century.

Calculating the rate of insertion of a word (words) into "verb + infinitive" formed by verbs in groups A, B, C using the same method, the frequency with which a word (words) is (are) inserted into "verb + infinitive" of this group of verbs in works from four periods is as follows:

- 36.8 % (196/533) in works from the late 18th century to the mid-19th century (Table 17),
- 35.2% (237/673) in works from the second half of the 19th century (Table 18),
- 23.8% (92/387) in works from the first half of the 20th century (Table 19),
- 30.3% (165/545) in works from the second half of the 20th century (Table 20).

Comparing the frequency of insertion of a word (words) into "verb + infinitive" in works from the four time periods, the frequency of insertion is lower (23.8%) in works from the first half of the 20th century than in the others (36.8 %, 35.2%, 30.3%).

Summing up these figures, the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs belonging to Group D in works from the late 18th century to the late 20th century is 32.3.% (690 (=196+237+92+165)/2138 (=533+673+387+545)).

Next, let's look at the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs in Group E.

E) verbs with the meaning of possibility and ability

umet' (can), *moch'* (can), *uspel'* (succeed)

The way to read the table is the same as explained above. For example, 6/24 written next to *umet'* on the left side of Table 21 indicates that "*umet'* + infinitive" is used 24 times in the work POD, and a word (words) is (are) inserted into "*umet'* + infinitive" 6 times. And the number 120 on the right side of the row for *umet'* represents the total number of times "*umet'* + infinitive" is used in the 12 works, and the number 36 represents the total number of times a word (words) is (are) inserted into "*umet'* + infinitive". The other fractions are like this and indicate the number of times that each work uses verbs and the number of times that a word (words) is (are) inserted into "verb + infinitive".

Table 21. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>umet'</i>	6/24	3/20	2/2	1/3	0/5	1/1	0/1	1/1	2/3	3/10	7/19	10/31	36/120
<i>moch'</i>	23/123	39/100	11/28	8/25	11/4 2	14/27	6/23	7/25	10/26	13/38	36/126	48/99	226/682
<i>uspel'</i>	0	0/5	0	0/1	0	0	1/3	0/1	6/15	4/6	7/19	5/11	23/61
Total	29/147	42/125	13/30	9/29	11/4 7	15/28	7/27	8/27	18/44	20/54	50/164	63/141	285/863

Table 22. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>umet'</i>	3/7	5/14	11/30	5/8	7/37	4/9	2/7	1/5	0	0	0/2	0	38/119
<i>moch'</i>	15/58	42/104	49/134	15/40	68/174	79/208	12/31	66/145	1/6	2/12	22/67	1/6	372/985

<i>uspet'</i>	1/3	3/11	8/21	3/12	3/6	18/46	4/13	10/23	0	2/10	4/8	0	56/153
Total	19/68	50/129	68/185	23/60	78/217	101/263	18/51	77/173	1/6	4/22	26/77	1/6	466/1257

Table 23. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>umet'</i>	0/2	2/7	1/4	0/1	0/1	2/7	0/2	2/17	0	0	1/1	8/42
<i>moch'</i>	3/9	9/34	27/60	24/65	1/14	17/51	13/29	54/258	10/21	7/18	18/61	183/620
<i>uspet'</i>	2/3	1/5	0	2/3	1/4	3/5	2/10	4/18	4/14	0	0/7	19/69
Total	5/14	12/46	28/64	26/69	2/19	22/63	15/41	60/293	14/35	7/18	19/69	210/731

Table 24. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>umet'</i>	0/3	3/10	0/1	4/9	4/7	4/9	1/7	3/11	1/1	3/5	2/7	25/70
<i>moch'</i>	25/91	23/60	8/21	16/44	0	37/95	14/40	0	12/52	9/24	26/68	170/495
<i>uspet'</i>	1/20	3/7	3/13	6/15	5/20	3/10	0/4	1/12	0	0/5	3/9	25/115
Total	26/114	29/77	11/35	26/68	9/27	44/114	15/51	4/23	13/53	12/34	31/84	220/680

Here are some examples of "verb + infinitive" with the insertion of a word (words). The bold parts represent "verb + infinitive". INF stands for an infinitive.

(22) On **umel** lovko **vertet'** na turnike «solntse». (ZBV)

he could skillfully spin-INF on horizontal bar sun

[He could skillfully spin the "sun" on the horizontal bar.]

(23) Ja ne **mogu** s toboj **razgovarivat'**. (LJU)

I not can with you talk-INF

[I can't talk to you.]

(24) Eshche smekh ne **uspel** sovershenno **sbezhat'** s litsa. (MED)

yet laughter not succeeded completely left from face

[The laughter had not yet completely left his face.]

As the total number of verbs written on the right side of each table indicates, "*umet'* + infinitive" is used frequently in works from the late 18th century to the late 19th century (120 times (Table 21), 119 times (Table 22)), but its frequency of use has decreased in works from the 20th century onwards (42 times (Table 23), 25 times (Table 24)). Meanwhile, "*moch'* + infinitive" is used consistently and very frequently in all works (682 times (Table 21), 985 times (Table 22), 620 times (Table 23), 495 times (Table 24)). And although the frequency of use of "*uspet'* + infinitive" varies depending on the year, it remains relatively stable and frequently used in all works (61 times (Table 21), 153 times (Table 22), 69 times (Table 23), 115 times (Table 24)).

Calculating the rate of insertion of a word (words) into "verb + infinitive" formed by verbs in groups A, B, C, D using the same method, the frequency with which a word (words) is (are) inserted into "verb + infinitive" of this group of verbs in works from four periods is as follows:

33.0 % (285/863) in works from the late 18th century to the mid-19th century (Table 21),

37.1% (466/1257) in works from the second half of the 19th century (Table 22),

28.7% (210/731) in works from the first half of the 20th century (Table 23),

32.4% (220/680) in works from the second half of the 20th century (Table 24).

Comparing the frequency of insertion of a word (words) into "verb + infinitive" in works from the four time periods, the frequency of insertion is lower (28.7%) in works from the early 20th century to the mid-20th century than in the others (33.0 %, 37.1%, 32.4%).

Summing up these figures, the frequency with which a word (words) is (are) inserted into "verb + infinitive" formed by verbs belonging to Group E in works from the late 18th century to the late 20th century is 33.4.% (1181 (=285+466+210+220)/3531 (=863+1257+731+680)).

Table 25 summarizes the percentage of words inserted into "verb + infinitive" for the above five lexical semantic groups. The leftmost vertical column of this table represents the five verb groups. The numbers in the horizontal columns indicate the rate at which a word (words) is (are) inserted into "verb + infinitive" for each group used in works from the four periods. The rightmost vertical column of the table indicates the total rate at which a word (words) is (are) inserted into "verb + infinitive" for each group.

Table 25. The insertion rate in works from the late 18th century to the late 20th century

	Late 18th century -mid-19th century	the second half of the 19th century	the first half of the 20th century	the second half of the 20th century	Total
A	19.9% (40/201)	19.2% (84/438)	15.0% (51/340)	17.1% (54/315)	17.7% (229/1294)
B	36.9% (55/149)	32.4% (80/247)	26.5% (39/147)	31.7% (58/183)	32.0% (232/726)
C	16.1% (14/87)	25.6% (32/125)	22.5% (20/89)	27.8% (30/108)	23.5% (96/409)
D	36.8% (196/533)	35.2% (237/673)	23.8% (92/387)	30.3% (165/545)	32.3% (690/2138)
E	33.0% (285/863)	37.1% (466/1257)	28.7% (210/731)	32.4% (220/680)	33.4% (1181/3531)

$$\chi^2=6.09064. v=16. p<0.995$$

A: phase verbs

B: verbs with the meaning of attempt to implement

C: verbs combining abstract lexical meanings with a clearly expressed evaluative connotation

D: verbs with the meaning of thought and desire

E: verbs with the meaning of possibility and ability

The following can be noted from this table:

When comparing the rate of word insertion into "verb + infinitive", the five groups can be divided into three. First, groups B, D, and E have very close insertion rates (32.0% (B), 32.3% (D), 33.4% (E)), so they are combined into a single group. And regarding the rate of word insertion into "verb + infinitive," there is a large difference between groups B, D, E and two groups (Group A (17.7%) and Group C (23.5%)), so we distinguish between groups B, D, E and groups A and B. The remaining Group A (17.7%) and Group C (23.5%) have a difference in their insertion rates, so they are distinguished separately.

Based on these three classifications, the rate of word insertion into "verb + infinitive" is as follows: the rate of word insertion into "verb + infinitive" is highest in (B, D, E), followed by C, and then A, the lowest. Expressed mathematically, this is (B, D, E) > C > A. ('>' means that the rate of word insertion into "verb + infinitive" is higher than)

As already mentioned, the frequency of word insertion into "verb + infinitive" is considered as follows: the more frequently a word (words) is (are) inserted into "verb + infinitive", the weaker the connection between the verb and the infinitive; conversely, the less frequently a word (words) is (are) inserted into "verb + infinitive", the stronger the connection between the verb and the infinitive.

Based on our criteria, the strength of the strength of the combination of the verb and the infinitive can be expressed mathematically as A > C > (B, D, E). ('>' means 'connects with the infinitive more strongly than')

N. Ju. Shvedova (1970,1980) states that groups A, B, and C form complementary relations with infinitives, Group D and Group E form object relations with infinitives, and verbs and infinitives that form complementary and object relations can be called strong combinations. However, she discusses the strength of the combination only in terms of the semantic relationship between verbs and infinitives and does not present criterion that is based on form. Because of this, Shvedova is unable to prove that the 'strong combination' she refers to has different degrees of strength. Our proposed criteria reveal that the connections between the five verb groups and infinitives are not all in one category but have three levels.

What factors are related to the difference in the strength of the combination between verbs and infinitives depending on the verb? Next, let us consider this question from the perspective of polarity in the verb and aspect in the infinitive.

5-2. The rate of word insertion into "verb + infinitive" according to the perspective of polarity and aspect

As clarified in the previous chapter, verb groups can be divided into three groups based on the strength of the combination between verbs and infinitives: 1) Group A, 2) Group C, and 3) groups B, D, E. From each of these groups, we extract "verb + infinitive" that is most used and is used uniformly in works from the late 18th century to the late 20th century and examine the distribution of its use from polarity in the verb and aspect in the infinitive.

Let's start by looking at Group A, which has the lowest rate of word insertion into "verb + infinitive" (i.e., the strongest combination between the verb and the infinitive). As shown in Tables 5, 6, 7, and 8, *nachat'* (*start*) is the most used verb in Group A.

Table 5. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>nachat'</i>	5/16	4/20	2/11	0/1	2/3	0/1	0/2	1/6	3/11	4/30	6/24	6/40	33/165

Table 6. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>nachat'</i>	2/14	4/22	8/27	4/22	8/42	8/38	4/22	2/6	0/1	0/4	6/26	1/2	47/226

Table 7. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>nachat'</i>	0/1	6/33	2/36	0/1	1/3	0	2/17	14/83	4/11	0/3	3/20	32/208

Table 8. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>nachat'</i>	1/11	5/13	8/35	2/26	2/9	4/14	2/3	3/17	1/11	0/8	6/19	34/166

We pay attention to the fractions on the far right side of each table. The denominator represents the total number of uses of "*nachat'*+ infinitive", and the numerator represents the number of word insertion into "*nachat'*+ infinitive". As can be seen from these four tables, the total number of *nachat'* combined with infinitives is 765 (= 165+226+208+166), of which the number of word insertion into "*nachat'*+ infinitive" is 146 (= 33+47+32+34). In other words, the rate of word insertion into "*nachat'*+ infinitive" is 19.1% (146/765). Taking this into consideration, we analyze "*nachat'*+ indefinite" from the perspective of polarity and aspect.

Table 26 summarizes the distribution of usage of "*nachat'*+ infinitive" in terms of affirmative and negative verbs form and perfective and imperfective infinitives.

Table 26. The distribution of "*nachat'*+ infinitive" usage in terms of polarity and aspect

<i>nachat'</i> + infinitive	Perfective infinitive	Imperfective infinitive
Affirmative verb form	0 (0%)	762 (99.6%)
Negative verb form	0 (0%)	3 (0.4%)

From this table we can see the following (The relevant example sentences are given. The bold parts represent "verb + infinitive". INF stands for infinitive.):

- 1) There is no *nachat'* connected with perfect infinitive in affirmative sentences.
- 2) 762 times *nachat'* relates to imperfect infinitive in affirmative sentence.

(25) Секретар' тотчас же **nachal chitat'** opisaniye vnutrennego osmotra. (VOS)
 secretary immediately started read-INF description internal examination
 [The secretary immediately began reading the description of the internal examination.]

(26) Vlasova **nachala bystro stirat'** slezy. (MAT)
 Vlasova started quickly wipe-INF tears
 [Vlasova began to quickly wipe away her tears.]

- 3) There is no *nachat'* connected with perfect infinitive in negative sentences.
- 4) 3 times *nachat'* relates to imperfect infinitive in negative sentence.

(27) Poka nejasen, no ved' versiju eshch ne **nachali otrabatyvat'**. (UKS)
 while unclear but after all version yet not started work-INF
 [It's not clear yet, but they haven't started working on the version yet.]

Thus, the use of "*nachat'* + infinitive" is unusually concentrated (99.6%) in affirmative sentences where the infinitive is imperfective. Of the four boxes in this table, the use of "*nachat'* + infinitive" is concentrated in only one box. In other words, there is a strong bias towards the use of "*nachat'* + infinitive" with a low rate of word insertion (15.2%) .

Next, let us look at Group C, which has the second lowest rate of word insertion into "verb + infinitive" (i.e., the second strongest combination between the verb and the infinitive). As shown in Tables 13, 14, 15 and 16, the use of *prijtis'* (*must*) is relatively stable and frequent in Group C.

Table 13. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>prijtis'</i>	0	0	0	0	0	0	0	0	0/2	0/5	2/7	0/1	2/15

Table 14. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>prijtis'</i>	1/1	1/2	2/3	1/1	0/3	2/7	0/1	2/11	0/1	0	0/1	0	9/31

Table 15. The insertion rate in works from the first half of the 20th century

	SKR	MAT	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>prijtis'</i>	0	0/1	1/5	1/9	0	0/1	4/9	11/43	0	0/2	0/1	17/71

Table 16. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>prijtis'</i>	3/12	1/4	5/7	2/4	7/19	1/8	0/1	1/6	4/12	0	4/12	28/85

We look at these tables in the same way as we looked at the "*nachat'* + infinitive" tables.

The total number of "*prijtis'* + infinitive" is 202 (= 15+31+71+85), of which the number of word insertion into "*prijtis'* + infinitive" is 56 (= 2+9+17+28). In other words, the rate of word insertion into "*prijtis'* + infinitive" is 27.7% (56/202). With this in mind, we analyze "verb + indefinite" from the perspective of polarity and aspect.

Table 27 summarizes the distribution of usage of "*prijtis'* + infinitive" in terms of affirmative and negative verbs form and perfective and imperfective infinitives.

Table 27. The distribution of "*prijtis'* + infinitive" usage in terms of polarity and aspect

<i>prijtis'</i> + infinitive	Perfective	Imperfective infinitive
------------------------------	------------	-------------------------

	infinitive	
Affirmative verb form	105 (52.0%)	83 (41.0%)
Negative verb form	8 (4.0%)	6 (3.0%)

This table shows us the following (The relevant example sentences are given. The bold parts represent "verb + infinitive". INF stands for an infinitive.):

1) 105 times *prijtis* ' relates to perfect infinitive in affirmative sentence.

(28) V takom sluchae mne **pridetsja udalit'sja** iz doma. (KPM)
 in that case me must leave-INF from house
 [In that case, I'll have to leave the house.]

(29) Tot, komu **pridetsja** pervomu **vstretit'** neprijatel'skij ogon', stanet na samom uglu.
 that whom must first meet-INF enemy fire stand at very corner
 [The one who has to meet the enemy fire first will stand at the very corner.] (GNV)

2) 83 times *prijtis* ' relates to imperfect infinitive in affirmative sentence.

(30) No tebe **pridetsja ee govorit'**. (MIM)
 but you must it say-INF
 [But you'll have to say it.]

(31) Vsjakomu davat' na vodku, tak samomu skoro **pridetsja golodat'**. (KAD)
 everyone give to vodka so oneself soon must starve-INF
 [If you give money to everyone for vodka, you yourself will soon have to go hungry.]

3) 8 times *prijtis* ' relates to perfect infinitive in negative sentence.

(32) Emu nikogda ne **pridetsja uvidat'**. (MED)
 him never not must see-INF
 [He will never have to see.]

(33) Ne tol'ko nikogda teper' ne **pridetsja emu uspet'** nagovorit'sja. (PIN)
 no only never now not must him be in time-INF talk
 [Not only will he never have time to talk enough,]

4) 6 times *prijtis* ' relates to imperfect infinitive in negative sentence.

(34) Tebe ne **pridetsja za nego stydit'sja**. (DOZ)
 you not must for him be ashamed
 [You won't have to be ashamed of him.]

(35) Zdes' byli mjagkie podushki, ne **prishlos' vezti** iz domu svoju. (RAK)
 here were soft pillows not had to bring-INF from home own
 [There were soft pillows here, I didn't have to bring my own from home.]

"*nachat* ' + infinitive" is extremely frequently combined with imperfective infinitives in affirmative sentences, but as Table 27 shows, "*prijtis* ' + infinitive" is combined with perfective infinitive in affirmative sentences almost equally often (52.0%) and with imperfective infinitive in affirmative sentences (41.0%), and together they account for 93% of the total usage. The number of uses of "*prijtis* ' + infinitive" is concentrated in two of the four boxes in this table. In other words, the distribution of usage of "*prijtis* ' + infinitive", which

has the word insertion rate of 27.7% , does not show the extreme bias of "*nachat*' + infinitive", but rather a slightly more gradual bias.

Finally, let us look at groups B, D, E, which have the highest rate of word insertion into "verb + infinitive" (i.e., the weakest combination between the verb and the infinitive). As shown in Tables 21, 22, 23, and 24, *moch*' (*can*) is the most used word in groups B, D, E.

Table 21. The insertion rate in works from the late 18th century to the mid-19th century

	POD	PPM	CPD	BEL	MPN	PFM	PID	NOS	KAD	GNV	MED	KTV	Total
<i>moch</i> '	23/123	39/100	11/28	8/25	11/4 2	14/27	6/23	7/25	10/26	13/38	36/126	48/99	226/682

Table 22. The insertion rate in works from the second half of the 19th century

	DET	RUD	SEK	OBL	OBO	PIN	OBY	GOG	CEM	ZAI	VOS	DAS	Total
<i>moch</i> '	15/58	42/104	49/134	15/40	68/174	79/208	12/31	66/145	1/6	2/12	22/67	1/6	372/985

Table 23. The insertion rate in works from the first half of the 20th century

	SKR	MA T	KPM	MY	ZHP	TSE	MIM	CHE	POT	KLS	PER	Total
<i>moch</i> '	3/9	9/34	27/60	24/65	1/14	17/51	13/29	54/258	10/21	7/18	18/61	183/620

Table 24. The insertion rate in works from the second half of the 20th century

	DOZ	DIN	TIP	LJU	PAS	RAK	DEA	ZBV	APT	SLP	UKS	Total
<i>moch</i> '	25/91	23/60	8/21	16/44	0	37/95	14/40	0	12/52	9/24	26/68	170/495

We look at these tables in the same way as we look at the "*nachat*' + infinitive" and the "*prijtis*' + infinitive" tables.

The total number of *moch*' combined with infinitives is 2782 (= 682+985+620+495), of which the number of word insertion between *moch*' and the infinitive is 951 (=226+372+183+170). In other words, the rate of word insertion into "*moch*' + infinitive" is 34.2% (951/2782).

Table 28 summarises the distribution of usage of "*moch*' + infinitive" in terms of the affirmative and negative verbs form and perfective and imperfective infinitives.

Table 28. The distribution of "*moch*' + infinitive" usage in terms of polarity and aspect

<i>moch</i> ' + infinitive	Perfective infinitive	Imperfective infinitive
Affirmative verb form	982 (35.3%)	484 (17.4%)
Negative verb form	729 (26.2%)	587 (21.1%)

$$\chi^2=38.97713. v=1. p<0.005$$

As shown by Table 28 (The relevant example sentences are given. The bold parts represent "verb + infinitive". INF stands for an infinitive.), the following can be pointed out.

1) 982 times *moch*' relates to perfect infinitive in affirmative sentence.

(36) Vy **mozhet**e **ugadat**' tri karty srjadu. (PID)

you can guess-INF three card in a row
[You can guess three cards in a row.]

(37) Oblomov **mog** dvazhdy **zavernut**'sja v nego. (OBL)

Oblomov could twice wrap oneself-INF in it
[Oblomov could wrap himself in it twice.]

2) 484 times *moch*' relates to imperfect infinitive in affirmative sentence.

(38) Teper' ja **mogu** **uteshat**' vas! (MPN)

now I can comfort-INF you
[Now I can comfort you!]

(39) Skol'ko ona **mogla** iz etogo doxoda **tratit'** ? (GOG)

how much she could from this income spend-INF
[How much could she spend from this income?]

3) 729 times *moch'* relates to perfect infinitive in negative sentence.

(40) Bezrukij ne **mozhet ujazvit'** nikogo. (PPM)

armless man not can hurt-INF nobody
[An armless man cannot hurt anyone.]

(41) Izmuchennaja devushka ne **mogla** bol'she **vynesti**. (KTV)

exhausted girl not could more bear-INF
[The exhausted girl could not bear any longer.]

4) 587 times *moch'* relates to imperfect infinitive in negative sentence.

(42) Voobshche ni odin pisatel' ne **mozhet terpet'** drugogo. (PFM)

in general no one writer not can tolerate-INF another
[In general, no writer can tolerate another.]

(43) Kovrin ne **mog** dal'she **chitat'**. (CEM)

Kovrin not could further read-INF
[Kovrin could not read further.]

The following can be noted from Table 28:

"*moch'* + infinitive" is related almost evenly to perfect and imperfect infinitives in both affirmative and negative sentences, and it is not strongly related to imperfect infinitive in affirmative sentences as in "*nachat'* + infinitive", nor is it strongly related to the perfect infinitive in affirmative sentence and imperfect infinitive in affirmative sentence as in "*prijtis'* + infinitive".

In other words, as can be seen from the following three tables (Tables 26, 27, and 28), the rate of word insertion into "*moch'* + infinitive" (34.2%) is much higher than that of "*nachat'* + infinitive" (19.1%) and "*prijtis'* + infinitive" (27.7%), and "*moch'* + infinitive" has a more open and widespread distribution of usage than "*nachat'* + infinitive" and "*prijtis'* + infinitive".

Table 26. The distribution of "*nachat'* + infinitive" usage (the insertion rate:19.1%)

nachat'+ infinitive	Perfective infinitive	Imperfective infinitive
Affirmative verb form	0 (0%)	762 (99.6%)
Negative verb form	0 (0%)	3 (0.4%)

Table 27. The distribution of "*prijtis'* + infinitive" usage (the insertion rate:27.7%)

prijtis' + infinitive	Perfective infinitive	Imperfective infinitive
Affirmative verb form	105 (52.0%)	83 (41.0%)
Negative verb form	8 (4.0%)	6 (3.0%)

Table 28. The distribution of "*moch'* + infinitive" usage (the insertion rate:34.2%)

moch' + infinitive	Perfective infinitive	Imperfective infinitive
Affirmative verb form	982 (35.3%)	484 (17.4%)
Negative verb form	729 (26.2%)	587 (21.1%)

$$\chi^2=955.18607. v=5. p<0.005$$

The higher the rate of word insertion into "verb + infinitive" (i.e., the weaker the combination between the verb and the infinitive), the wider the distribution of "verb +

infinitive" usage, but the lower the rate of word insertion into "verb + infinitive" (i.e., the stronger the combination between the verb and the infinitive), the narrower the distribution of "verb + infinitive" usage.

In this way, it became clear that the strength of the combination of verbs and infinitives in "verb + infinitive" is related to whether "verb + infinitive" has closed or open characteristics. Limited relationships tend to be more strongly connected than extensive relationships.

6. Conclusion.

Previous studies of the degree of strength of the combination of verbs and infinitives in Russian are conducted only in semantic relations, without relying on criterion that is based on form and have not revealed the hierarchy of the strength.

This paper uncovered the hierarchy of the strength of the combination of verbs and infinitives when they are used as compound predicates, by looking at the frequency with which a word (words) appears (appear) between the verb and the infinitive in 46 literary works from the end of the 18th to the 20th century. We analyzed 8098 verb-infinitive combinations. Our investigation demonstrates the following scale of the strength of the combination of verbs and infinitives in terms of word insertion into "verb + infinitive":

phase verbs > verbs combining abstract lexical meanings with a clearly expressed evaluative connotation > verbs with the meaning of attempt to implement, verbs with the meaning of thought and desire, verbs with the meaning of possibility and ability.

(‘>’ means ‘connects with infinitives more strongly than’)

And this hierarchy then reflects the restrictive and expansive relationships between verbs and infinitives in the distribution of their usage.

Finally, we would like to point out that the criteria we have proposed are also applicable to teaching Russian to foreigners.

Ja. D. Luk’janova (2019) compares "verb + infinitive" used as compound predicate in English and Russian and shows that there are cases where the verbs are used as an auxiliary verb and cases where they retain their original meanings as verbs, but she does not mention the difference in the frequency with which word (words) is (are) inserted between verbs and infinitives.

In general, it is difficult for English speakers to understand that a word (words) can be inserted into "verb + infinitive" used as compound predicate. For example, in Russian "Я хочу больше учиться.", ‘больше (more)’ is inserted between the first-person singular verb ‘хочу (want)' and the infinitive ‘учиться (study)’. However, when this is translated into English, it becomes "I want to study more." For English speakers, inserting ‘more’ between ‘want’ and ‘to study’ is unacceptable. Therefore, it would be useful to teach foreigners learning Russian that a word (words) can easily be inserted between verbs with the meaning of desire and the infinitive.

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