

MISCELLANEA

RUSSIAN POETRY RHYTHM ANALYSIS AND PROBABILITY THEORY*

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(Translated by R. I. Rosina)

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The following paper was originally obtained from V. V. Ivanov, along with some other materials also pertaining to Russian verse research, which Andrei Nikolaevich Kolmogorov studied actively and with inspiration together with a group of his younger colleagues while Chair of Probability Theory at Moscow University.

The typewritten copy of the manuscript contained nine pages, had no date, and, as far as I know, was never submitted for publication. One can only make guesses as to why this manuscript was not published: could it be that Kolmogorov considered it unfinished, or that his last check revealed regrettable inaccuracies that had crept into it and he put off publication?

Now, 35 years later (the paper was probably written in 1962), the editors of *Theory of Probability and Its Applications*, sharing the finally formed conviction that everything Kolmogorov ever wrote should come out, has decided to publish this manuscript.

A. B. Sossinsky, with whom Andrei Nikolaevich discussed these matters quite frequently during the very last years of his life, took an active part in preparing the manuscript for publication. His commentary, as well as notes explaining some notions of the theory of versification for those readers who are not familiar with the issues discussed in the paper, immediately follow the text.

August 23, 1998

N. G. Khimtchenko (Rychkova)

*What makes the study of
versification so much fun is that
almost everything in this
field is controversial.*

B. Tomashevskii⁽¹⁾¹

On the basis of ten samples of five thousand words each, Georgii Shengeli⁽²⁾ made a frequency table of Russian words of different rhythmical structure (taking into consideration the number of syllables and the stress position).

We have used a comparatively limited corpus of a thousand words from Pushkin's "The Queen of Spades" to check the conjecture that the sequences of words of different rhythmical structure in prose "follow the laws of probability theory," i.e., that the relative frequency of a word having a certain rhythmical shape does not change when

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¹Footnotes in parentheses refer to the notes at the end of the paper.

TABLE 1.²

—		15,50	—	⌋	⌋	⌋	⌋	⌋	⌋	0,004
—	⌋	15,90	⌋	—	⌋	⌋	⌋	⌋	⌋	0,090
⌋	—	16,40	⌋	⌋	—	⌋	⌋	⌋	⌋	0,600
—	⌋	6,80	⌋	⌋	⌋	—	⌋	⌋	⌋	0,800
⌋	—	13,50	⌋	⌋	⌋	⌋	—	⌋	⌋	0,200
⌋	—	8,10	⌋	⌋	⌋	⌋	⌋	—	⌋	0,002
—	⌋	0,90	—	⌋	⌋	⌋	⌋	⌋	⌋	0,000
⌋	—	6,20	⌋	—	⌋	⌋	⌋	⌋	⌋	0,000
⌋	⌋	7,70	⌋	⌋	—	⌋	⌋	⌋	⌋	0,000
⌋	⌋	1,10	⌋	⌋	⌋	—	⌋	⌋	⌋	0,001
—	⌋	0,08	⌋	⌋	⌋	⌋	—	⌋	⌋	0,001
⌋	—	1,05	⌋	⌋	⌋	⌋	⌋	—	⌋	0,000
⌋	⌋	3,30	⌋	⌋	⌋	⌋	⌋	⌋	—	0,000
⌋	⌋	1,50	⌋	⌋	⌋	⌋	⌋	⌋	⌋	
⌋	⌋	0,09	⌋	⌋	⌋	⌋	⌋	⌋	⌋	

the rhythm of the preceding text sequence has been fixed. Naturally, this principle of independently combining rhythmical word structures cannot be considered rigorous even with respect to pure business prose, where no artistic rhythmical tendency is active. Yet, as a first approximation to a statistical description of the rhythmical structure of speech, this principle is surprisingly good even when applied to artistic prose such as “The Queen of Spades.”³

Naturally, in syllabic-accentual verse⁽⁴⁾, the requirements of meter⁽⁵⁾ crucially violate such a random succession of words of different rhythmical structures. It was noted long ago that the rhythm of poetic speech is constituted by

- 1) strict requirements of meter and strophic structure;
- 2) rhythm characteristics complementary to meter, which are retained throughout a great number of lines, or in the entire poetic work or in a number of poetic works;
- 3) individual techniques for linking the rhythm of certain lines or certain groups of lines to their emotional content.

The second group is constituted by verse characteristics, supplementary to meter and strophic structure requirements that, by their very nature, are akin to statistical rules. Long ago the observation was made that for each poet such supplementary rhythmical features within one meter are very stable. Thus, the frequency of the basic four-foot iamb⁽⁶⁾ forms

⌋	—	⌋	—	⌋	—	⌋	—	(⌋)	III
⌋	⌋	⌋	—	⌋	—	⌋	—	(⌋)	PIII
⌋	—	⌋	⌋	⌋	—	⌋	—	(⌋)	IPII
⌋	—	⌋	—	⌋	⌋	⌋	—	(⌋)	IIPI
⌋	⌋	⌋	—	⌋	⌋	⌋	—	(⌋)	PIPI
⌋	—	⌋	⌋	⌋	⌋	⌋	—	(⌋)	IPPI

²G. Shengeli, *Traktat o Russkom Stikhe. (The Treatise on Russian Verse)*, M. P.: Gos. Izdat., pp. 20–21.

³B. Tomashevskii discovered the following in “The Queen of Spades”:

a) The tendency of stress to condense at the beginning of a sentence;
 b) the tendency of repetition, after an odd group of unstressed syllables between two stressed ones, of another odd group of unstressed syllables. Yet all such tendencies are expressed rather weakly.

TABLE 2.⁴

Work	Line pattern					
	IIII	PIII	IPII	IIPi	PIPI	IPPI
“Bakhchissaraj Fountain”	23.9	5.3	10.7	52.4	7.5	0.2
“Poltava”	27.3	6.1	6.5	50.3	9.6	0.0
“Bronze Horseman”	28.4	6.5	4.3	49.4	11.1	0.2
“Eugene Onegin”	27.6	6.8	9.7	45.4	9.2	0.3

in Pushkin’s poems and “Eugene Onegin,” according to Shengeli’s count, are given in Table 2.

The percentages⁴ here are stable but different from those characteristic of other poets.

The first comprehensive study of Russian four-foot iamb from this point of view was conducted by Andrej Belyi⁽⁷⁾ (see Table 3). Yet some of A. Belyi’s conclusions proved to be trivial. In particular, if the frequency of each of the six verse forms mentioned above is an individual characteristic of the rhythmical habits of each poet (sometimes naturally changing in the course of time or accompanying changes of genre), the frequency of different forms in two neighboring lines, as B. Tomashevskii revealed, follows almost precisely the probabilistic product rule for independent tests.

In the supplementary column on the right in Table 3, products of frequencies are given:

$$P_1 \times P_3 = (PIII + PIPI) \times (IIPi + PIPI) = PIPI_{com},$$

i.e., frequencies for the PIPI type under the assumptions that the pyrrhics⁽⁸⁾ on the first foot and the third foot appear randomly and independently.⁵ The close correspondence of these products to the frequencies in the column PIPI is quite convincing.

Such observations led B. Tomashevskii and G. Shengeli to establish techniques for eliciting the statistical regularities of poetic rhythm, which, in general, were absolutely correct. First, the frequency of some phenomenon is calculated under the assumption of “random versification” within meter requirements or of more elementary statistical regularities that have been established earlier, and then the frequencies observed in reality are compared to those theoretically calculated.

Later we shall see that in a number of instances the correspondence between the calculated and observed frequencies is quite close. This occurs when the poet obeys the tendency to express his thoughts with *maximum freedom within meter requirements*. In following this principle, there is nothing reprehensible to discredit the idea of complete and perfect purposefulness of the poetic work structure.

Only against the background of such regularities, the source of which is the mere striving for a maximally possible use of the natural features of the Russian language, can the truly *artistically motivated* tendencies of the poet be distinctly seen as *deviations from theoretical frequencies*.

⁴G. Shengeli, *Traktat o Russkom Stikhe (Treatise on Russian Verse)*, pp. 144–147.

⁵In the formula suggested here the second factor in parentheses should contain the item IPIP as well, which is a natural constituent of P_3 , i.e., of the total sum of stress omissions on the third foot. In the commentary at the end of this paper, counts of $PIPI_{com}$ are made according to this more precise formula. The reader can easily see that because of the comparatively small value of this omitted item (IPIP), the conclusions of the paper did not differ significantly. — *Publisher*

TABLE 3.⁶
For 596 four-foot iambic lines.

Line structure	III	PIII	IPII	IPI	<u>PIPI</u>	IPPI	<u>PIPI</u> _{com}
Author							
1. Lomonosov	188	8	128	256	5	11	5
2. Derzhavin	313	20	138	236	26	1	20
3. Bogdanovich	310	15	109	257	9	5	11
4. Dmitriev	334	11	95	232	14	5	10
5. Kapnist	338	28	103	214	7	9	14
6. Batiushkov	262	21	28	301	7	5	15
7. Zhukovskii	270	46	50	234	44	2	42
8. Pushkin	173	50	32	280	60	1	62
9. Lermontov	232	43	47	263	58	0	54
10. Jazykov	167	41	11	301	85	2	83
11. Baratynskii	169	102	3	262	62	1	89
12. Tiutchev	215	39	60	264	76	2	66
13. Benediktov	224	29	24	313	30	0	34
14. K. Pavlova	262	62	68	224	44	3	49
15. Polonskii	256	56	41	242	40	2	46
16. Fet	189	77	34	268	62	0	77
17. Maikov	256	41	24	263	36	0	33
18. Mei	186	58	15	285	65	2	73
19. Nekrasov	212	37	42	303	44	0	47
20. A. Tolstoi	231	42	13	282	41	0	45
21. Sluchevskii	241	32	29	278	42	3	40
22. Merezhkovskii	205	31	16	304	55	0	52
23. Nadson	202	28	31	335	31	0	36
24. Sologub	211	72	27	239	74	0	77
25. Bryusov	273	37	48	250	36	0	35
26. Blok	256	58	69	223	55	4	53
27. Gorodeckii	263	48	11	245	29	0	35
28. Ivanov	294	26	49	219	55	2	37

Let us consider, following Shengeli,⁶ a rather special but quite concrete question concerning the nature of the word boundary in the instances when a pyrrhic foot introduces hypostasis⁽⁹⁾ into iamb. In the four-foot iambic⁷ verse of the IPII type, this is possible in the following eight variants of lines with masculine clausula⁽¹⁰⁾:

⁶G. Shengeli, *Traktat o Russkom Stikhe (Treatise on Russian Verse)*, p. 57.

⁷A. Belyi, *Symvolism: Kniga Stikhov (Symbolism: The Book of Poems)*, Musaget, Moscow, 1910, pp. 286–287.

a	$\overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad}$ 0.164 0.164 0.011	0.00027
b	$\overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad}$ 0.135 0.155 0.011	0.00022
c	$\overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad}$ 0.164 0.135 0.081	0.00182
d	$\overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad}$ 0.135 0.160 0.081	0.00173
e	$\overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad}$ 0.164 0.062 0.164	0.00173
f	$\overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad}$ 0.135 0.068 0.164	0.00168
g	$\overbrace{\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad}$ 0.164 0.010 0.155	0.00025
h	$\overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad\quad}^{\quad} \overbrace{\quad\quad}^{\quad}$ 0.135 0.010 0.155	0.00022

Below the words in every line, we have written their frequencies from Table 1. The products of these frequencies, given on the right, divided by their sum in all eight variants, are equal to the relative frequencies of our variants in lines with masculine clausula and pyrrhic third foot in random versification.

In Table 4 these frequencies, after being added in pairs according to the four possibilities for the occurrence of word boundaries around the pyrrhic,

a + b	$\text{—} \text{—} \text{—} \text{—} \text{—}$
c + d	$\text{—} \text{—} \text{—} \text{—} \text{—}$
e + f	$\text{—} \text{—} \text{—} \text{—} \text{—}$
g + h	$\text{—} \text{—} \text{—} \text{—} \text{—}$

are compared with those actually observed in “Eugene Onegin” (absolute number of lines and percentage).

We see that in “Eugene Onegin” Pushkin uses two “easier” (with respect to word choice) positions of word boundaries, without any preference for one over the other, in accordance with their frequencies in random versification; he gives some preference to the more difficult word boundary

$\text{—} | \text{—} \text{—} \text{—} \text{—}$

and avoids the word boundary

$\text{—} \text{—} \text{—} \text{—} | \text{—}$

A slight preference, as compared with its probability, given to the word-boundary

$\text{—} | \text{—} \text{—} \text{—} \text{—}$

might be the expression of an instinctive striving for rhythm variety, fulfilled, however, without any exaggeration.⁸

⁸In his “Pervoe Svidanie” (“The First Date”) Andrei Belyi achieved (out of a conscious wish, it seems, to be diverse and original) the following paradoxical table:

a + b	20	6.6%
c + d	114	37.7%
e + f	117	38.7%
g + h	51	17.0%
	302	100%

TABLE 4.

	Calculated	%	In "Eugene Onegin"	%
a + b	0.00049	6	129	9
b + c	0.00365	45	677	48
d + e	0.00346	43	574	42
f + g	0.00047	6	19	1
	0.00807	100	1402	100

A similar picture is found in Pushkin's poems, as well as in works by Derzhavin and Zhukovskii. This fully agrees with Valerii Bryusov's opinion that in the word-boundary distribution of the type

$$\begin{array}{ccccccc} - & | & \smile & \smile & \smile & - \\ - & & \smile & | & \smile & - \\ - & & \smile & \smile & | & - \end{array}$$

the line is "finished," whereas in the distribution of the type

$$- \smile \smile \smile | -$$

it is "not finished." The analysis of the same issue on the basis of Pushkin's verse with the pyrrhic in different positions in the line leads to similar results. Pushkin avoided the hypostasis by the pyrrhic on the second foot of the four-foot iambic verse with particular persistence. G. Shengeli was able to find only one such line:

"Kto zh vyzovetsia, deti, drugi . . ."
("Who will volunteer, children, friends . . .")

Starting with Baratynskii, Yazykov, and Lermontov, the amount of attention paid to escape instances of the type $- \smile \smile \smile | -$ diminishes. Later the use of all four ways of introducing the pyrrhic on the third foot corresponds closer to the chance of obtaining them in random versification.⁹

Shengeli would have been able to come to these correct results, had he not, for some obscure reason, decided that one should extract the cubic root (according to the number of syllables in the line) of the frequency products calculated above. As a result, he came to the erroneous conclusion that both instances with the extreme position of word boundaries

$$\begin{array}{ccccccc} - & | & \smile & \smile & \smile & - \\ - & & \smile & \smile & \smile & | & - \end{array}$$

are avoided by almost all poets, and he even managed to feel that they are "less perfect" than the remaining two

$$\begin{array}{ccccccc} - & \smile & | & \smile & \smile & - \\ - & \smile & \smile & | & \smile & - \end{array}$$

⁹Although some authors have relevant nonrandom deviations as well.

Tomashevskii does not reproduce Shengeli's mistake in his works. To calculate the features of each rhythmical variant of the line (see "O Stikhe" ("About Verse"), "Priboj," Leningrad, 1929, pp. 100–116) he counts the products of frequencies of various types of words constituting the rhythmical variant, divides this product by the sum of all such products for verse variants allowed by meter, and considers the product obtained in this way as being the "theoretical" frequency of the variant, defining the "characteristic" as the ratio of the observed frequency by the theoretical one.

Unfortunately, Tomashevskii makes another mistake. It is not the frequencies of word types in the Russian language (prose) that he multiplies, but their frequencies in the work he studies ("Eugene Onegin").

To understand what is wrong here, let us consider words of the type — ◡ ◡ ◡. In a four-foot iamb line such words may be found in two positions:

"Kto zh *vyzovetsia*, deti, drugi. . ."
 ("Who will *volunteer*, children, friends. . .")

Or

"Letajut *plamennye vzory*. . ."
 ("Flying are *burning glances*. . .")

The first position is not found at all in "Eugene Onegin" (as has already been noted), whereas the second is used *seven* times in lines with masculine clausula and eighteen times in lines with feminine clausula.⁽¹¹⁾ The ban on the first position diminishes, naturally, the probability of the appearance of such a word in "Eugene Onegin," but it would be ridiculous to use the frequency obtained as a result of this diminishment in our calculation of either the ease or difficulty of placing a word of the given rhythm in the second allowed position!

So, following Shengeli, one should multiply the frequencies of word types in prose. Many features calculated by Tomashevskii will become, after this mistake of his has been corrected, several times different.

Therefore, almost all the analytical work begun by Tomashevskii and Shengeli must be conducted anew.

Calculating and adding the theoretical frequencies of rhythm varieties is a rather tedious task. Yet there is a much simpler way. We have already cited the table (see Table 3 after A. Belyi) proving that the frequency of using four-foot iamb basic variants is a relevant feature of the individual rhythmical practice of various poets. The same table demonstrates a convincingly close correspondence between the observed frequencies of the PIPI type and those calculated on the basis of the conjecture that the pyrrhics on the first foot and third foot appear randomly and independently. So, to give a comprehensive description of the poet's tendencies to retain or omit metric stresses, it will do to indicate the frequencies P_1 , P_2 , P_3 , with which he omits each of the three stresses, and the frequency of the PIPI type, with which he introduces the double pyrrhic on the second and third foot ("I klanialsia neprinuzhdenno. . ." ("And bowed with ease. . .")). As for the frequency of the seemingly particularly expressive lines of the PIPI type:

"I v aravii'skom uraga'ne,
 I v dunove'nii chumy',"
 ("Both in the Arabian hurricane
 And in the plague's breath")

it can be calculated.

Statistic regularities of rhythmic speech coloring that hold throughout all poetic works are simple and few, but this is what provides additional freedom in the choice of rhythms corresponding to the emotional content of certain lines or groups of lines.

The analysis of such individual rhythmic moves should be checked by means of probabilistic calculations as well. We will illustrate this point by a trivial example. As we have seen, Pushkin uses the PIPi form of the four-foot iamb with the pyrrhic on the third foot

◡ — ◡ — ◡ ◡ — (◡)

in 40–50% of his lines. With the assumption that the probability of such a line is $\frac{1}{2}$, the probability of encountering 15 lines of this form in a random sequence of 16 lines is

$$16 \left(\frac{1}{2}\right)^{15} \left(1 - \frac{1}{2}\right) = \left(\frac{1}{2}\right)^{12} \sim \frac{1}{4000}.$$

So, Pushkin could have come to such a sequence by chance only if he had written tens of thousands of lines. But we had in mind 16 lines of Cleopatra's oath from the "Egyptian Nights," which immediately rejects the conjecture that such a monotonous rhythm was accidental.

In less obvious instances a probabilistic verification of the validity of conjectured correspondences between rhythm and content is more difficult, which does not make its study less desirable.

Notes

- (1) **Tomashevskii** Boris Viktorovich (1890–1957): literary critic, expert in text and verse theory, Pushkin's biographer.
- (2) **Shengeli** Georgii Arkadjevich (1894–1956): poet and translator, engaged in verse research.
- (3) In Table 1, as well as everywhere else afterwards, symbols accepted in versification theory are used, i.e., — for a stressed syllable and ◡ for an unstressed one.
- (4) **Syllabo-tonic versification:** the versification based on the regular order of stressed and unstressed syllables in a line; the basic meters of syllabo-accentual versification are the iamb (◡ —), the trochee (— ◡), the dactyl (— ◡ ◡), the amphibrach (◡ — ◡), and the anapest (◡ ◡ —).
- (5) **Meter:** the pattern of regular interchange of strong and weak positions in verse, e.g., the four-foot iamb: (◡ — ◡ — ◡ — ◡).
- (6) **Iamb:** a verse meter with strong positions (ictuses) on even syllables in the line, the most frequently used meter of Russian syllabic-accentual verse. Four-foot: the basic pattern of iamb constituted by four two-syllable feet in a line.
- (7) **Andrej Belyi** (pen-name of Boris Nikolaevich Bugaev, 1880–1934): writer and poet, literary critic, one of the leading figures of symbolism.
- (8) **Pyrrhic:** in syllabic-accentual versification, the omission of stress in an iambic or trochaic foot, i.e., a foot of two unstressed syllables.
- (9) **Hypostasis:** according to *Slovar Inostrannykh Sloz, Voshedshikh v Russkii Jazyk* (*Dictionary of Foreign Words Borrowed by the Russian Language*, compiled by K. S. Kuz'minskii et al., edited by T. M. Kapel'zon, Sovetskaja Enciklopedija, Moscow, 1933), a term in modern Russian literary criticism referring to the substitution of one foot for another (for instance, choree or iamb for pyrrhic, or a stressed syllable for an unstressed one).

- (10) **Masculine clausula:** The last stressed syllable at the end of an iambic line, for example, “Chto znal on luchshe vseh nauk” (“What knew he better than all sciences”).
- (11) **Feminine clausula:** the extra unstressed syllable at the end of an iambic line, for example, “Byla nauka strasti nezhnoj...” (“Was the science of the tender passion...”).

Commentary

While preparing the manuscript for publication, we turned to A. Belyi’s book *Symbolism* to compare Table 3 of the manuscript with the table on pp. 286–287 of Belyi’s book. (For the reader’s convenience Belyi’s table is given on the following page.)

While comparing these tables, readers will immediately become aware of three facts. First of all, in the published paper the “matrix” (poets \times verse form) appeared transposed, since its rows and columns have been interchanged. Second, Table 3 contains data concerning three new poets (Sluchevskii, Nadson, and Ivanov), and, alongside these, two new columns (in Belyi’s table there are five lines, whereas in Table 3 there are seven). Third, and this is most astonishing, only the fifth and sixth columns of Table 3 are completely identical with the fourth and fifth lines in Belyi’s table.

Let us compare these two tables in more detail.

For his table Belyi selected 596 four-foot iamb lines of 25 different poets, from Lomonosov to Gorodeckii, and for each of them counted the number of stresses omitted on various feet. The number of stresses omitted on one foot or another (which, in particular, is indicated on the left) is counted irrespective of whether they are omitted on other feet as well. So, in the lines of Belyi’s table one can find the following data (in the system of symbols used in the given paper):

$$\begin{aligned} I &= PIII + PIII; & II &= IPPI + IPPI; \\ III &= IPI + PIPI + IPPI; & IV &= PIPI; & V &= IPPI. \end{aligned}$$

It is quite obvious that the columns of Table 3 can be easily obtained by merely subtracting the corresponding lines in Belyi’s table. Thus, $PIII = I - IV$, i.e., the second column of Table 3 is obtained by subtracting the fourth line of Belyi’s table from its first line. As for the first column (IIII — the number of fully stressed lines) of Table 3 (one of the two added columns), it can be obtained, too, in quite a simple way; the sum total of all lines with at least one stress omitted is subtracted from the number 596.

It is worth mentioning here that in the added column IIII the numbers have proved correct in three lines only (for Lomonosov, Pushkin, and Gorodeckii). For the rest of the poets the item representing IPPI was not subtracted from the corresponding number. Consequently, in all instances but the three that we have indicated, the sum in the first six columns of Table 3 is not equal to 596 (the number of lines by the given poet said to have been analyzed).

In this commentary Table 3 is given with the necessary corrections (see Table 3 (corrected)). In particular, we have corrected the first column (IIII) and calculated, using a more precise formula on page 377, the column $PIPI_{com}$ (see the footnote to this formula). As the reader will easily see, these corrections are numerically so insignificant that they practically do not change the essential conclusions of the paper.

A. BELYI'S TABLE.¹⁰

The sum of iambic dimeter acceleration (on 596 lines)	Lomonosov	Derzhavin	Bogdanovich	Dmitriev	Kapnist
On the first foot	13	46	24	25	35
On the second foot	139	139	114	100	112
On the third foot	272	263	271	251	230
On the first and third	5	26	9	14	7
On the second and third	11	1	5	5	9
On the first and second	0	0	0	0	0
	Batiushkov	Zhukovskii	Pushkin	Lermontov	Yazykov
On the first foot	28	90	110	101	126
On the second foot	33	52	33	47	13
On the third foot	313	280	341	321	388
On the first and third	7	44	60	58	85
On the second and third	5	2	1	0	2
	Baratynskii	Tyutchev	Benediktov	K. Pavlova	Polonskii
On the first foot	164	115	59	107	96
On the second foot	4	62	24	72	43
On the third foot	325	342	343	271	284
On the first and third	62	76	30	44	0
On the second and third	1	2	0	3	2
On the first and second	0	0	0	0	0
	Fet	Maiakov	Mei	Nekrasov	A. Tolstoi
On the first foot	139	77	123	81	83
On the second foot	34	24	17	42	13
On the third foot	330	299	352	347	323
On the first and third	62	36	63	44	41
On the second and third	0	0	2	0	0
	Merezhkovskii	Sologub	Bryusov	Blok	Gorodetskii
On the first foot	86	146	73	13	77
On the second foot	16	27	48	173	11
On the third	359	313	286	282	274
On the first and third	55	74	36	55	29
On the second and third	0	0	0	4	0

Additionally, in Table 3 (corrected) we have interchanged the columns PIFI and IPFI from Table 3, so that the column PIFI_{com} is next to what it is being compared with. It is also worth noting that, as we have already mentioned, in the Table 3 given in this paper the number of poets turns out to be 28 (because Sluchevskii, Nadson, and Ivanov were added).

¹⁰A. Belyi, *Symbolism: Kniga Stikhov (Symbolism: The Book of Poems)*, Musaget, Moscow, 1910. Belyi's table presented here, as well as in his book *Symbolism*, is constituted by five "subtables" representing five authors each. The first and the third of these subtables contain six lines, whereas the rest contain five; the sixth line corresponds to the pattern PIFI (stress omission on the first two lines), but as Belyi came across such stress pattern only once (in K. Pavlova's verse, the third subtable), he did not include this trivial zero line into the rest of the subtables.

TABLE 3 (corrected). For 596 four-foot iambic lines.

Line shape	III	PIII	IPII	IPI	IPPI	PIPI	PIPI _{com}
Author							
1. Lomonosov	188	8	128	256	11	5	6
2. Derzhavin	175	20	138	236	1	26	20
3. Bogdanovich	201	15	109	257	5	9	11
4. Dmitriev	239	11	95	232	5	14	11
5. Kapnist	235	28	103	214	9	7	14
6. Batyushkov	234	21	28	301	5	7	15
7. Zhukovskii	220	46	50	234	2	44	42
8. Pushkin	173	50	32	280	1	60	63
9. Lermontov	185	43	47	263	0	58	54
10. Yazykov	156	41	11	301	2	85	82
11. Baratynskii	156	102	3	262	1	62	89
12. Tyutchev	155	39	60	264	2	76	66
13. Benediktov	200	29	24	313	0	30	34
14. K. Pavlova	194	63	68	224	3	44	48
15. Polonskii	215	56	41	242	2	40	46
16. Fet	155	77	34	268	0	62	77
17. Maikov	232	41	24	263	0	36	39
18. Mei	171	58	15	285	2	65	73
19. Nekrasov	170	37	42	303	0	44	47
20. A. Tolstoi	218	42	13	282	0	41	45
21. Sluchevskii	212	32	29	278	3	42	40
22. Merezhkovskii	190	31	16	304	0	55	52
23. Nadson	171	28	31	335	0	31	36
24. Sologub	184	72	27	239	0	74	77
25. Bryusov	225	37	48	250	0	36	35
26. Blok	187	58	69	223	4	55	53
27. Gorodeckii	263	48	11	245	0	29	35
28. Ivanov	245	26	49	219	2	55	38

Actually, these additions come from another table, appearing separately in Belyi's book (*loc. cit.*). (I am indebted to M. L. Gasparov, who pointed this out to me after the Russian version of this issue of *Theory of Probability and Its Applications* was published.)

Finally, let us stress that the manuscript is published here practically without any editorial changes, with the exception of some references, which have been completed.

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