



Venera KAYUMOVA
Docent, Candidate of science
Uzbek State World Languages University

**THE RHYTHM OF HYPERMETRICAL STRESSING IN RUSSIAN POETRY
OF THE 19TH AND EARLY 20TH CENTURIES (ON THE BASIS OF THE
IAMBIC TETRAMETER)***

Мақолада муаллиф нометрик урғуларнинг вазн системаси тадрижий такомилени рус шеъриятидаги вазн шакллари частоталари сатҳида ва уларнинг вариантларига асосланиб ўрганган. Унда ритмик структураларни қўллашнинг назарий кўрсаткичлари келтирилиб, реал кўрсаткичлар билан таққосланган. Нометрик урғуларнинг муайян ритмик структураларга мойиллиги ва бошқаларидан қочиши аниқланган. Маълумотларни талқин этишда М.А. Краснопёрова шеърини матнлари ритмик структурасининг вужудга келиши ва уларнинг идрок этилиши моделига асосланилган.

В статье автор рассматривает эволюцию ритмики сверхсхемных ударений в русской поэзии на уровне частот ритмических форм и их вариантов. Приводятся теоретические показатели употребительности ритмических структур и сравниваются с реальными показателями. Выявлено тяготение сверхсхемных ударений к определенным ритмическим структурам и избегание других. Интерпретация данных основывается на модели порождения и восприятия ритмических структур стихотворных текстов М.А. Краснопёровой.

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In this article the author researches the rhythm which is based on the statistical evolution of hypermetrical stress in Russian poetry in the level of frequency of rhythmical forms and their variations. The author uses theoretical frequencies of using the rhythmic structures and compares with real frequencies. In the result of the research it was discovered that the hypermetrical stresses prefer some rhythmical structures and avoid the others. The data were interpreted on the basis of M.A. Krasnoperova's model for generating and perceiving rhythmic structures of poetic texts.

Калит сўзлар: ритмлар эволюцияси, тўрт бўғинли вазн, ритм структураси, нометрик урғу, рус поэзияси.

Ключевые слова: эволюция ритмики, четырехстопный ямб, ритмическая структура, сверхсхемные ударения, русская поэзия.

Keywords: evolution of rhythm, iambic tetrameter, rhythmic structure, hypermetrical stresses, Russian poetry.

In the iambic tetrameter the meter stipulates that the even-numbered syllables receive stress. However, stresses also occur on odd syllables in this meter. Stresses on these syllables can be called hypermetrical (HM):

Но меркнет день – настала ночь;	U – ' U – ' U – ' U – '
Пришла – и с мира рокового	U – ' U – ' U – U – ' U
Ткань благодатную покровы,	Ú – U – ' U – U – ' U
Сорвав, отбрасывает прочь ...	U – ' U – ' U – U – '

We will consider as HM not only stresses on such content words as nouns, verbs, adjectives, adverbs, and numerals, but also those on pronouns and pronominal adverbs.

The research has been based on about 36,000 lines of verse in the works of 22 poets from the 19th and early 20th centuries.

HM stressing can perform several functions in the poetic text.

1. It may cause a brisk in the rhythm and underscore semantically important words. In the self-commentary to his poem “Во свет рабства тьму претвори ...” A. Radishchev wrote: “the roughness of the verse gives figurative expression to the difficulty of the action” (14, p. 82).

2. It can make the rhythm heavy. A. P. Sumarokov reproached M.V. Lomonosov for his heavy style (9, p. 121 f.). According to M. L. Gasparov calculations, Lomonosov’s heavier verse contain more spondees than A. P. Sumarokov’s lighter verse (1, p. 205).

However it should be noted that there is not always such a direct dependence between the quantity of HM stresses and the nature of the verse rhythm. For instance, the rhythm of works by V.G. Benediktov, who began to publish in the 1830s, was heavy. “His [Benediktov’s. – V.K.] friend Shevyrev was against using heavy verses.... his [Benediktov’s. – V.K.] creative work seems disharmonic, deliberately elaborate, weighted down by verbal flourishes” (8, p. 9) As for Pushkin’s verse, it is light. According to our data, Pushkin’s lines averaged 0.296 HM stresses in the

1830s; Benediktov, during the same period, had less: 0.224 (the figures indicate the percent of HM stresses per line). That is, the works of the poet with fewer HM stresses had a heavier rhythm than did those of the poet with a lighter rhythm.

3. HM stressing helps form the rhythmic aspect of the verse and lines. That is likely one of its most important features. We will consider it below.

In this article we intend to analyze the evolution of the frequency of HM stressing and its distribution among forms and variants of the iambic tetrameter (Tables 1–2).

Table 1

Rhythmic Forms in the Iambic Tetrameter

Forms	Rhythmic structure	Example
Form 1	U – ' U – ' U – ' U – '	Высокий лад, глубокий мир
Form 2	U – U – ' U – ' U – '	Колоколов дремучий лес
Form 3	U – ' U – U – ' U – ' U	Я слушаю моих пенатов
Form 4	U – ' U – ' U – U – ' U	В часы внимательных закатов
Form 5	U – U – U – ' U – ' (U)	<i>In rare cases</i>
Form 6	U – U – ' U – U – ' U	Как на фарфоровой тарелке
Form 7	U – ' U – U – U – ' U	Позволена их переставить
Form 8	U – U – U – U – ' (U)	<i>It can't be found practically</i>

Table 2

Variants of Forms

Variants of form	Rhythmic structure	Example
3pr	U – ' U – U – ' U – ' U	Горячей головы качанье
3pt	U – ' U – U – ' U – '	Над кипами конторских книг
4pr	U – ' U – ' U – U – '	Пространство, звезды и певец
4pt	U – ' U – ' U – U – ' U	Разлука. Бешеные звуки
6pr	U – U – ' U – U – ' U	Я поднимаюсь над собою
6pt	U – U – ' U – U – ' U	И раскрывается с шуршаньем

It should be noted that the goal is to identify tendencies in the development of HM stressing frequency, and therefore the results were not tested for significance. The point is that when M.A. Krasnoperova compared the actual stressing of strong syllables in the odes by M.V. Lomonosov to that predicted by the theoretical model, she noticed certain discrepancies between the observed and calculated figures. These deviations were not statistically significant; however, taken together, they played an important role in the development of the rhythm for the iambic tetrameter (5, p. 182).

As the background for examining the evolution of the rhythm of HM stressing, we would like to present the decade-by-decade stressing of the ictuses in the iambic tetrameter, which we calculated on the basis of approximately 87,000 lines (Table 3).

Table 3
Stressing on Strong Syllables in the Iambic Tetrameter

Periods	Second syllable	Fourth syllable	Sixth syllable
The 1880s	92.19	84.57	52.96
The 1810s	89.31	86.72	45.85
The 1820s	83.60	90.04	43.49
The 1830s	85.95	90.67	44.68
The 1840s	83.51	90.05	45.27
The 1850s	83.57	91.47	43.38
The 1860s	80.21	92.18	45.09
The 1870s	83.57	95.39	45.24
The 1880s	80.16	92.92	44.50
The 1890s	79.96	96.43	40.60
The 1900s	81.76	89.73	47.16
The 1910s	81.23	85.65	46.16

Let us briefly describe these results. In the development of the rhythm, the fourth syllable shows the greatest consistency. According to our data, starting from 1800 till the end of the century, except for the 1840s and the 1880's, stressing on the fourth syllable (the second ictus) gradually increases; stressing on this position decreases during 1900–1920. Stressing on the second syllable decreases over the entire period we studied, with four interruptions: in the 1830s, the 1850s, the 1870s and the 1900s. The sixth syllable exhibits decreased stressing during the first three decades of the 19th century; stressing subsequently increases until the 1880s (with the exception of the 1850s), and then, other than the 1900s, decreases. It should be noted again that that the stressing of the fourth syllable is a determining factor in the development of the verse rhythm, and therefore special attention will be focused on the 1840s, the 1880s, and the beginning of the 20th century: a time when the development of poetic rhythm moves in reverse, and the rhythm becomes heavier.

HM stressing has attracted the attention of many scholars. In particular, B.V. Tomashevskii (12, p. 127) observed, on the basis of the iambic tetrameter in *Eugene Onegin*, that HM stressing most often occurs on the first syllable. This tendency received confirmation in articles by K.F. Taranovskii and A.V. Prokhorov (11, p. 398), and by M.L. Gasparov (1, p. 202). In addition, these authors noted that HM stressing

decreases from the beginning to the end of the line. Gasparov (1, p. 202) further confirmed these findings by studying poets from various periods and traditions.

Finally, according to Gasparov's (1, p. 206) observations, the total number of HM stresses on the inner syllables of verse lines is always lower than the number of stresses in the anacrusis.

Let's examine how the frequency of HM stressing evolves. Table 4 shows that the number of HM stresses increases starting from the 1810s to the 1860s, with the exception of the 1840s, and then it decreases until the 1910s. The frequency again increases during the 1910s. Interestingly, the frequency decreases slightly in the 1870s and more noticeably during the 1880s. Thus, deviations from the general tendency in the evolution of the frequency of HM stressing occur in the 1840s, 1880s, and 1910s.

Table 4

Distribution of HM Stressing by Syllables

Periods	Num-ber of lines	HM Stresses		HM Stressing							
		№.	%	Syllable 1		Syllable 3		Syllable 5		Syllable 7	
				№.	%	№.	%	№.	%	№.	%
The 1880s	455	75	0.165	51	0.112	13	0.034	10	0.022	1	0.002
The 1810s	3858	773	0.200	537	0.139	120	0.031	96	0.025	20	0.005
The 1820s	3121	697	0.223	465	0.149	117	0.037	90	0.029	25	0.008
The 1830s	4064	696	0.171	433	0.107	126	0.031	97	0.024	40	0.015
The 1840s	8035	1968	0.245	1266	0.158	318	0.040	265	0.033	119	0.015
The 1850s	3992	992	0.248	659	0.165	176	0.044	107	0.027	50	0.013
The 1860s	983	238	0.242	166	0.169	36	0.037	23	0.023	13	0.013
The 1870s	1393	314	0.225	217	0.156	36	0.026	48	0.034	13	0.009
The 1880s	279	62	0.222	40	0.143	13	0.047	5	0.018	4	0.014
The 1890s	4673	784	0.168	577	0.123	96	0.021	76	0.016	35	0.007
The 1900s	5224	1029	0.197	759	0.145	118	0.023	91	0.017	61	0.012
Total	36077	7628	0.211	5170	0.144	1169	0.034	908	0.025	381	0.011
Theoretical					0.1047		0.0309		0.0374		0.0175

The number of HM stresses is higher on the first syllable than on the others. Furthermore, even the total amount of such stressing on all the inner syllables is less than the amount in the anacrusis. Now let us compare these data with the theoretical

totals. As Table 5 shows, the theoretical data indicates as well that there should be more HM stressing in the anacrusis than on the inner syllables.

Table 5

Theoretical Frequency of HM Stressing

Form and variant	1	3	5	7	Total	Frequency of stressing in inner syllables
1	0.0037	0.0024	0.002	0.0016	0.0097	0.0600
2	0.0128	-	0.0011	0.0009	0.0148	0.0020
3pr	0.0083	0.0085	-	0.0028	0.0196	0.0113
3pt	0.0069	-	0.0036	0.0021	0.0126	0.0057
3	0.0152	0.0085	0.0036	0.0049	0.0322	0.0170
4pr	0.008	0.0059	0.0083	-	0.0222	0.0142
4pt	0.0065	0.0049	-	0.0036	0.0150	0.0085
4	0.0145	0.0108	0.0083	0.0036	0.0372	0.0227
6pr	0.0217	-	0.0043	-	0.0260	0.0043
6pt	0.0108	-	-	0.0003	0.0111	0.0003
6	0.325	-	0.0043	0.0003	0.3296	0.0046
7	0.0108	0.0007	0.0145	0.0013	0.0273	0.00165
Total	0.1047	0.0309	0.0374	0.0175		

Let us analyze one more feature in the evolution of HM stressing. Scholars of verse rhythm have observed that this stressing decreases from the beginning to the end of the line. Our data on the whole confirm this (Table 4). However, in the 1880s, as the table shows, the amount of HM stressing in the line decreases in a wave-like fashion, with less on the third syllable than on the fifth. Such a distribution occurred earlier as well in the history of Russian verse rhythm: in the solemn odes of M.V. Lomonosov (cf. 4, p. 31–32.), as well as during the 1780s in the works of some other 18th century writers, when the evolution of the iambic tetrameter rhythm reversed direction (cf. 3, p. 91–93).

The theoretical figures for HM stressing also decrease from the beginning to the end of the verse as well, but with a small “wave” on the fifth syllable (Table 5).

Let us consider the dynamics of HM stressing syllable by syllable (Table 4). The frequency of HM stressing increases on the first syllable until the 1880s except for the 1840s; beginning in the 1880s the frequency on the first syllable decreases until the 1910s, when it increases. Thus stressing on the first syllable reflects the general tendencies in the development of HM rhythm.

It is difficult to distinguish clear tendencies in the frequency of HM stressing on the third syllable; in all it increases five times and decreases five times. But it is

interesting to note that despite this non-systemic usage of HM stressing on the third syllable, during the 1840s, 1880s, and 1910s tendencies in the frequency of HM stressing on the third syllable correspond to those on the first.

The frequency of HM stressing on the fifth syllable gradually increases right up to the 1850s, except for the 1840s. Starting from the 1860s the amount of HM stressing on this syllable decreases, with a break in the 1880s. Note that though HM stressing on the fifth syllable is in general less than on the third, its use on the fifth syllable is nonetheless more stable and shows a distinct evolution.

HM stresses increase on the seventh syllable until the 1840s; because of their small number, however, it is difficult to speak of a clearly expressed tendency.

How can one interpret the results? While the verse rhythm (stressing on the even syllables) becomes lighter and lighter, the amount of HM stressing increases. And vice versa: during those periods when the verse rhythm becomes heavier, the amount of HM stressing decreases and in some cases its distribution over the line simultaneously takes on a wave-like shape. These conclusions, reached through examining the almost 200-year development of the iambic tetrameter's rhythm, correspond well with M.A. Krasnoperova's (6) model for the generation and perception of rhythmic structures. To our mind, they can be derived from this model through the compensatory functions of its components.

Let us see how HM stressing is distributed in the forms and in variants of the forms of the iambic tetrameter. First we will compare the actual use of HM stressing in verse texts with the theoretical data.

Table 6

HM stressing in the forms

Forms	1	2	3	4	6	7
Actual frequency of HM stressing	0.057	0.031	0.017	0.080	0.028	0.001
Theoretical frequency	0.0097	0.0148	0.0322	0.0372	0.0330	0.0273
Actual / theoretical ratio	5.88	2.09	0.53	2.15	0.85	0.43

As Table 6 indicates, the most HM stressing occurs in Form 4 and then in order of decreasing frequency come Forms 1, 2, 6, 3 and 7. Theoretically, the most HM stressing is also in Form 4, however, the order of the remaining forms does not correspond to that found in verse: 6, 3, 7, 2 and 1. In our view the frequency of HM

stressing in Form 1 is particularly notable: if Form 1 has the fewest HM stresses in prose, then in verse texts they become the basis for realizing certain rhythmic effects. Let us analyze the ratio of HM stressing in verse forms to that predicted by the theoretical model. For Form 1, HM stressing appears about 6 times more frequently in actual verse than in the theoretical model. This underlines the importance of Form 1 and its rhythmic variants for the structure of verse. In Forms 2 and 4 HM stressing is favored more in verse than the theory indicates, while in the remaining Forms — 3, 6 and 7 — poets use it relatively less than the theoretical model would allow.

A high frequency of HM stressing in forms automatically affects the frequency in their variants. However, as is evident from the tables, more HM stressing occurs in the pre-tonic variants than in the post-tonic.

Let us compare the frequency of HM stressing for the variants of forms using the actual and the theoretical data. The ratio of the pre-tonic to the post-tonic variants in Forms 3 and 4 is higher in the actual verse than in the theoretical model, while for the variants in Form 6, the reverse is true. This suggests that Form 6 is rhythmically light and most often must remain so in the realization of the rhythm. On the whole, the greater frequency of HM stressing in pre-tonic variants results from language factors.

Table 7

HM stressing in the variants of the forms

The variant of the form	3pr tonic)	3pt (post-tonic)	3pr/3pt	4pr	4pt	4pr/4pt	6 pr	6pt	6pr/6pt
Frequency of stressing	0.011	0.006	1.83	0.049	0.032	1.53	0.017	0.011	1.55
Actual / theoretical ratio	0.0196	0.0126	1.56	0.0222	0.0150	1.48	0.0260	0.0111	2.34

Notably, in the theoretical data (Table 5) for all forms except 2 and 6, as well as for the variants 6pr, 6pt and 3pt, the frequency of stress is higher in the inner syllables than in the anacrusis. This means that the opposite ratio observed for the forms within actual poetry reflects a feature that is specific to verse.

B.V. Tomashevskii, who researched HM stressing in the novel *Evgeny Onegin*, found that the relative frequency of HM stressing in the anacrusis for the various forms was as follows¹: 2, 6, 3, 1, 4. For our data its frequency in the anacrusis for each form

is as follows (from highest to lowest): 4, 1, then approximately the same for 2 and 6, and then 3 and 7.

Let us examine Table 8, which details the use of HM stressing in Form 1.

Table 8

HM Stressing in Form 1

Periods	Num-be lines	HM Stressing							
		1 ¹		1 ³		1 ⁵		1 ⁷	
		№	%	№.	%	№.	%	№.	%
The 1810s	455	10	0.022	3	0.007	4	0.009	1	0.002
The 1820s	3858	113	0.029	45	0.012	35	0.009	8	0.002
The 1830s	3121	130	0.042	50	0.016	48	0.015	13	0.004
The 1840s	4064	85	0.021	55	0.014	35	0.009	16	0.004
The 1850s	8035	282	0.035	126	0.016	105	0.013	49	0.006
The 1860s	3992	150	0.038	51	0.013	29	0.007	17	0.004
The 1870s	983	34	0.035	9	0.009	5	0.005	4	0.004
The 1880s	1393	46	0.033	18	0.013	12	0.009	6	0.004
The 1890s	279	7	0.025	2	0.007	3	0.011	2	0.007
The 1900s	4673	128	0.027	33	0.007	47	0.010	14	0.003
The 1910s	5224	154	0.029	32	0.006	37	0.007	21	0.004
Total	36077	1139	0.032	424	0.012	360	0.010	151	0.004
Theoretical			0.0037		0.0024		0.002		0.0016

The average frequency of HM stressing in this form is 0,057. Note the changes in stressing on each of the odd syllables. HM stressing on the first syllable increases until the end of the 1860s, with the exception of the 40s, and then it decreases to the end of the period under study, with a slight increase during the 1910s.

The frequency of HM stressing on the third syllable is not high (the average is 0,012), but certain tendencies in its use are evident: the frequency exhibits a slight rise until the end of the 1850s, except during the 1840s, and then, other than during the 1880s, it gradually decreases.

We will not examine HM stressing on the fifth and seventh syllables because the frequency is too low.

Let us analyze the distribution over the line of HM stressing for this form. In general, the more common tendencies in the distribution of HM stressing are preserved: the highest number occurs on the first syllable, and the frequency decreases from the beginning of the line to the end. However, there are some exceptions: HM stressing on the fifth syllable is slightly higher than on the third during the 1880s and 1890s. Theoretically as well (Table 5), the frequency of HM stressing in the line

decreases from beginning to end. Interestingly, the greatest deviation between the actual and theoretical frequencies occurs on the first syllable: i.e., in Form 1 HM stressing on this syllable fulfills a special function.

The frequency of HM stressing in Form 2 is 0,031. As is evident from Table 9, HM stressing on the first syllable in this form occurs fairly often, but it is impossible to speak of a particular tendency in its use. The amount of HM stressing on the remaining syllables is quite small. Interestingly, only 6 examples of HM stressing were found on the third syllable. The actual usage of HM stressing is higher than the theoretical, especially on the first syllable.

Table 9

HM Stressing in Form 2

Periods	Num-ber lines	HM Stressing							
		2 ¹		2 ³		2 ⁵		2 ⁷	
		№.	%	№.	%	№.	%	№.	%
The 1810s	455	10	0.022	3	0.007	-		-	-
The 1820s	3858	103	0.027	1	0.000	17	0.004	3	0.001
The 1830s	3121	56	0.018	-	-	11	0.004	2	0.001
The 1840s	4064	58	0.014	-	-	19	0.005	1	0.000
The 1850s	8035	222	0.028	1	0.000	27	0.003	9	0.001
The 1860s	3992	133	0.033	-	-	16	0.004	5	0.001
The 1870s	983	25	0.025	1	0.001	1	0.001	1	0.001
The 1880s	1393	49	0.035	-	-	5	0.004	1	0.001
The 1890s	279	11	0.039	-	-	8	0.002	1	0.004
The 1900s	4673	135	0.029	-	-	11	0.002	5	0.001
The 1910s	5224	145	0.028	-	-	11	0.002	8	0.002
Total	36077	947	0.026	6	0.000	115	0.003	36	0.001
Theoretical			0.0128		-		0.0011		0.0009

Now we will look at the use of HM stressing in Form 4 (Table 10). The frequency on the first syllable increases until the end of the 1870s, except for the 1840s and 1860s. It falls for the 20-year period beginning in the 1880s, and then it increases through the end of the 1910s.

Table 10

HM Stressing in Form 4

Periods	Number of l	HM Stressing							
		4 ¹		4 ³		4 ⁵		4 ⁷	
		№.	%	№.	%	№.	%	№.	%
The 1810s	455	17	0.037	5	0.011	5	0.011	-	-
The 1820s	3858	192	0.050	68	0.018	35	0.009	8	0.002
The 1830s	3121	190	0.061	63	0.020	25	0.008	8	0.003
The 1840s	4064	187	0.046	61	0.015	27	0.007	13	0.003
The 1850s	8035	472	0.059	155	0.019	92	0.011	35	0.004
The 1860s	3992	220	0.055	103	0.026	55	0.014	18	0.005
The 1870s	983	62	0.063	23	0.023	11	0.011	5	0.005
The 1880s	1393	67	0.048	16	0.011	23	0.017	2	0.001
The 1890s	279	10	0.036	7	0.025	1	0.004	1	0.004
The 1900s	4673	185	0.040	45	0.010	16	0.003	9	0.002
The 1910s	5224	246	0.047	72	0.014	24	0.005	19	0.004
Total	36077	1848	0.051	618	0.017	314	0.009	118	0.003
Theoretical			0.0145		0.0108		0.0083		0.0036

On the third syllable, the frequency increases until the 1860s, except for the 1840s, and then it decreases, other than during the 1890s and 1910s.

One can speak of a tendency for HM stressing to decrease on the fifth syllable until the 1850s, and then it increases until the 1890s, except for the 1870s. After the 1880s the frequency of HM stressing on the fifth syllable falls, and it is difficult to speak about any norms in its use during the remaining periods.

The amount of HM stressing on the seventh syllable is too small to distinguish the dynamics of its usage.

The frequency of HM stressing on all syllables in the line, as in the theoretical figures, falls from the beginning to the end of the line. An exception occurs in poetic texts of the 1880s, when the frequency of HM stressing varies in a wave-like fashion. The frequency of HM stressing on the first syllable is considerably higher than in the calculated data; on the other syllables, the theoretical and actual figures are very close.

The frequency of HM stressing on the inner syllables of actual verse lines is almost always lower than in the anacrusis—unlike in the theoretical data.

To be continued.

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