# The Concepts of "Verse", "Meter" and "Rhythm" in Russian Verse Theory<sup>1</sup>

## Igor Pilshchikov\*

**Abstract**: This article examines definitions of verse and descriptions of the relationships between meter and rhythm as proposed by scholars of Russian poetry. Building on their observations, the author devises a constructive definition of "meter" as a system of permissions and prohibitions governing the distribution of word stresses and word boundaries in a verse line. Additionally, the article proposes constructive definitions for the versification systems employed in Russian poetry.

Keywords: verse theory, verse, meter, rhythm, metrization and rhythmization, rhythmical impulse, versification system

1. The interrelation between meter and rhythm is not merely a core issue but a pivotal aspect in the study of Russian prosody. The discovery of this dichotomy marked the genesis of verse studies in Russia.

In his *Introduction to Metrics: A Theory of Verse* (1925) Viktor Zhirmunsky wrote: "The basic problem of the theory of verse out of which the entire book grew, is the opposition between rhythm and meter – an opposition which Andrei Belyi was the first to formulate clearly for classical Russian poetry in his famous works on iambic tetrameter (*Symbolism*, 1910)" (1966 [1925]: 12; tr. mod.). Zhirmunsky was convinced that meter marks the borderline between what should be regarded as verse and what is prose; however, this is

Author's addresses: University of California, Los Angeles, Department of Slavic, East European and Eurasian Languages and Cultures, 320 Kaplan Hall, UCLA, Los Angeles, CA 90095; Tallinn University, School of Humanities, Uus-Sadama 5, Tallinn 10120, Estonia, email: pilshch@tlu.ee.

<sup>&</sup>lt;sup>1</sup> This article is a revised, extended and updated version of the author's earlier publications in Russian and Polish (Pilshchikov 2017a; 2021).

<sup>&</sup>lt;sup>2</sup> "Основная проблема теории стиха, из которой зародилась вся книга, – противопоставление ритма и метра, как оно впервые было отчетливо выражено для классического русского стиха в известных работах А. Белого о четырехстопном ямбе" ("Символизм", 1910)" (Zhirmunsky 1925: 6; compare Tomashevsky 1929: 53). Other translations from Russian are mine unless otherwise noted.

not true because there also exist such phenomena as metrical prose and *vers libre*, i.e. free, ametrical verse. If indeed the presence of meter lets us decide between what is verse and what is prose, then this would solve the problem of a constructive definition of verse since every text containing meter would automatically be regarded as verse, and any ametrical text would be regarded as prose – which we know is not the case.

We call a definition descriptive (or theoretical) when it identifies the object by enumerating its properties or functions. A constructive (or practical) definition explicitly describes its arrangement. Theoretical sciences transform constructive definitions into descriptive definitions, while applied sciences transform descriptive definitions into constructive definitions (Jaglom 1980: 13–14). For example, we need constructive definitions of these concepts for automated recognition of verse and meter. The descriptive definition of verse is a theoretical description of the difference between verse and prose. Therefore, the "verse *vs.* prose" dichotomy is more fundamental than the "meter *vs.* rhythm" dichotomy and methodologically precedes it.

Russian verse theorists proposed several theoretical definitions of verse (as opposed to prose), which are not, however, convertible into a constructive definition (a list of formal differences between verse and prose). To date, we are still not capable of developing an algorithm that would enable us to distinguish between prose and verse in general, but leading prosodists have produced both theoretical and constructive definitions of versification systems, verse meters, verse rhythm, and particular rhythmic types of individual meters.

Russian verse theory at its late formalist stage came up with the theoretical definition of verse, which is most clearly expressed in the ex-"junior formalist" Boris Bukhshtab's formula of "dual segmentation": "Any text breaks up into subordinate syntactic segments; in the poetic text, however, this [...] is combined with the segmentation into lines of verse as well as verse entities which are larger or smaller than the line [...] the latter segmentation can either coincide with or diverge from the former, thus creating innumerable possibilities of rhythmic-syntactic correlations." "Junior formalists" (*mladoformalisty*) were members of the group of Yuri Tynianov's and Boris Eikhenbaum's disciples. The theory of "dual segmentation" is already clearly expressed in Eikhenbaum's *Melodics of Russian Lyric Verse* (1922): "In a verse line, the syntax [...] is not

<sup>&</sup>lt;sup>3</sup> "Любой текст членится на соподчиненные синтаксические отрезки; но в стихотворном тексте с этим [...] сочетается членение на стихотворные строки и на более крупные и мелкие, чем строка, стиховые единства [...] второе членение то совпадает, то расходится с первым, создавая бесчисленные возможности ритмико-синтаксических соотношений" (Bukhshtab 1973: 110–111).

articulated in semantic segments, but in rhythmic segments: sometimes it coincides with a rhythmic segment (a line = a phrase), and sometimes it surmounts it (enjambment)"; "I [...] consider the melodic structure of syntax in connection with the facts of rhythmic segmentation, i.e., mainly with the relationship of the phrase and the poetic line or stanza".

Following Eikhenbaum's and Bukhshtab's line of thought, Maksim Shapir argued in his article "*Versus* vs. *prosa*", it inevitably turns out that "the difference between verse and prose is the division into verses itself. [...] The latter definition of poetic discourse was formulated independently by Maksim Kenigsberg (1994 [1923]), Boris Tomashevsky (1923; 1928), and Yuri Tynianov (1924). The shortcoming of their definition is not its seemingly tautological character but its insufficiency: we do not know what is unique about the poetic line as compared with any other [kind of line]. Tomashevsky believed the *specificum* of verse was its state of being divided into comparable and commensurable segments" (Shapir 1995b: 49).<sup>5</sup>

Mikhail Gasparov, who recalibrated many formalist concepts and gave them a classical form, endorsed Tomashevsky's idea. In his entry on "Stikh" ("Verse") in the *Concise Literary Encyclopedia*, Gasparov formulated the two main characteristics of the verse lines: their "comparability" (*sopostavimost*) and their "commensurability" (*soizmerimost*):

STIKH [VERSE] (from the Greek  $\sigma\tau(\chi o \zeta - row$ , line) is artistic speech, phon[et]ically divided into relatively short segments (each of which is also called "S[tikh]" [a verse-line]), [and] which are perceived as comparable and commensurable. The opposite notion is that of *prose* (see *Poetry and prose*). Prosaic speech is also divided into segments – *cola* [Sing. *colon*]; but, as compared to prose, the verse segmentation has two peculiarities: 1) in prose, text

<sup>&</sup>lt;sup>4</sup> "Синтаксис [...] членится в стихе не по смысловым делениям, а по ритмическим, то совпадая с ними (строка = фразе), то преодолевая их (enjambement)"; "Я [...] рассматриваю мелодическое строение синтаксиса в связи с фактами ритмического членения, т.-е. главным образом с отношением фразы и стихотворной строки или строфы" (Eikhenbaum 1922: 6; 18).

<sup>5 &</sup>quot;...стихи отличаются от прозы самим делением на стихи [...] Это определение стихотворной речи в начале 1920-х годов независимо друг от друга предложили М. М. Кенигсберг (1923), Томашевский (1923; 1928) и Тынянов (1924). Недостаток их дефиниции – не в кажущейся тавтологичности, а в неполноте: мы не знаем пока, в чем заключается своеобразие строки стихотворной по сравнению с любой другой. Полнее других свои взгляды на природу стихового единства обнаружил Томашевский. Он усмотрел specificum стиха в его расчлененности на отрезки, соотносимые и соизмеримые между собой" (Shapir 1995а: 14).

segmentation is determined only by syntactic pauses, [while] in verse, the dividing pauses may not coincide with syntactic pauses (*enjambment*); 2) in prose, segmentation by means of dividing pauses is to a large extent arbitrary, [while] in verse, it is a given.<sup>6</sup>

Both criteria ("comparability" and "commensurability") had earlier been formulated by Tomashevsky (1959: 10), but Gasparov's definitions are more perspicuous.

In the 1990s, Shapir challenged this definition, arguing that if we take, say, variable iambs<sup>7</sup> and *vers libre* as examples, we shall see that the verse lines (i) are **not comparable** in quantitative terms (they may have from 1 to 12 and more syllables), and (ii) they are **not commensurable** in qualitative terms, that is they do not always use one and the same *measure*<sup>8</sup> (in variable iambs, a mono**syllabic** line may be rhymed with a mono**podic** or poly**podic** line: it is hard to consider a *one*-syllable line as an iambic *foot* which should contain *two* syllables<sup>9</sup>). Thus, according to Shapir, verse cannot be described in terms of *comparability of the commensurable* but rather as the *equation of incommensurable*. The same point was earlier made by Juri Lotman:

<sup>&</sup>lt;sup>6</sup> "СТИХ (от греч. στίχος – ряд, строка) – худож[ественная] речь, фонически расчлененная на относительно короткие отрезки (каждый из них также наз. «С[тих]»), к[ото]рые воспринимаются как сопоставимые и соизмеримые. Противоположное понятие – проза (см. Поэзия и проза). Прозаич[еская] речь тоже членится на отрезки – колоны; но по сравнению с прозой членение стиха обладает двумя особенностями: 1) в прозе членение текста определяется только синтаксич[ескими] паузами, в стихе членящие паузы могут не совпадать с синтаксическими (enjambement); 2) в прозе выделение членящих пауз в значит[ельной] мере произвольно, в стихе оно твердо задано" (Gasparov 1972b: 197; original emphases denote referenced terms). Compare Gasparov 2001: 6. On Gasparov's definition see Klenin 2008; Skulacheva 2012: 45–46.

<sup>&</sup>lt;sup>7</sup> For an overview of this meter, see Scherr 1986: 103–109. The accepted Russian term is *vol'nyj jamb*, 'free iamb'.

In Gasparov's formulation, "COMMENSURABILITY, in verse studies, is a property of all poetic lines of the [poetical] work to be measured (in the reader's consciousness) by one and the same conventional measure" ["СОИЗМЕРИМОСТЬ – в стиховедении свойство всех стихотв[орных] строк одного произведения измеряться (в сознании читателя) одной и той же условной мерой"] (Gasparov 1972b: 43).

<sup>&</sup>lt;sup>9</sup> Andrei Kolmogorov and Aleksandr Prokhorov suggested a no less unusual solution to this paradox, contending that a monosyllabic line in classical variable iambs is rhythmically identical to the frequent extrametrical stress in the first foot of iambic lines, ranging from one to six feet (Kolmogorov, Prokhorov 1968: 402–403). In their scheme, a monosyllabic line acts as an iambic line with fewer than one foot (0.5 or 0?).

The *rhythmicity of verse* is the cyclical repetition of different elements in identical positions with the aim of equating the unequal or revealing similarity in difference, or the repetition of the identical with the aim of revealing the false character of this identity and establishing differences in similarity. (Ju. Lotman 1976 [1972]: 42; tr. mod.)<sup>10</sup>

## Hence Shapir's theoretical definition of verse:

Verse is the system of pervasive compulsory paradigmatic segmentations [...]. Verse segmentations are pervasive because they run through the entire work or fragment. Verse segmentations are compulsory because they are pre-ordained by the author's will which is objectively expressed and cannot be ignored by a recipient. Verse segmentations are paradigmatic: they form the rhythmic units belonging to the same level, which are correlated with one another as variants of a single invariable. (Shapir 1999/2000b: 138)<sup>11</sup>

The last part of this definition was widely discussed, but this discussion is irrelevant to the context of the present paper. What matters for our purposes is that Shapir's *theoretical* definition of verse, as well as Gasparov's, is hard or impossible to convert into a *constructive* definition, as Shapir himself once pointed out (qtd in Pilshchikov, Starostin 2009: 300). To build computer programs, we use constructive definitions. This means we still cannot develop an algorithm to decisively distinguish between prose and verse today.

Boris Tomashevsky, who was educated as an engineer and represented the "empiricist" wing of Opojaz (the Petersburg association of formalists) and the Moscow Linguistic Circle (the Moscow association of formalists), always used constructive categories in his thinking. In his *Russian Versification: Metrics* (1923), Tomashevsky wrote: "It is impossible to give an exact objective

<sup>&</sup>lt;sup>10</sup> "Ритмичность стиха – цикличное повторение разных элементов в одинаковых позициях с тем, чтобы приравнять неравное и раскрыть сходство в различном, или повторение одинакового с тем, чтобы раскрыть мнимый характер этой одинаковости, установить отличие в сходном" (Ju. Lotman 1964: 67; 1972: 45). For a more detailed comparative analysis of Juri Lotman's and Maksim Shapir's approaches, see Akimova 2023.

<sup>&</sup>quot;Я понимаю стих как систему сквозных принудительных парадигматических членений [...]. Стиховые членения – сквозные, поскольку проходят через весь текст, а там, где они прерываются, мы имеем дело с прозаическими вставками. Стиховые членения – принудительные, поскольку они диктуются объективно выраженной волей автора, с которой воспринимающий не может не считаться. Стиховые членения – парадигматические: образованные ими ритмические единицы соотносятся как варианты общего инварианта" (Shapir 1999/2000a: 117; 2015: 237). On Shapir's definition see Dobritsyn 2007; Pilshchikov 2012.

definition of verse: it is impossible to list the main properties which distinguish between verse and prose." A constructive definition of verse is unavailable, but we can constructively define versification systems and meters within each versification system. Therefore, the "commensurability" concept introduced by Tomashevsky and Gasparov enables us to define *meter* rather than *verse*.

**2.** Let us now consider the dichotomy of meter and rhythm. Verse rhythm is distinct from the rhythm of natural speech: we are aware of the different "expiratory power" of vowels in ictic and non-ictic positions noted by Roman Jakobson in "Briusov's stichology" (Jakobson 1922: 229; Rudy 1976: 481); we know that the so-called "semi-stressed" ("rhythmically ambiguous") words may be pronounced differently in ictic and non-ictic positions, as was discussed by Jakobson, Tomashevsky, Zhirmunsky, and Gasparov, among others (Pilshchikov 2019).<sup>13</sup> In other words, meter only emerges against the background of rhythm, and rhythm emerges against the background of meter.

In 1921, Zhirmunsky maintained: "Rhythm is the *actual alternation* of stresses in verse, resulting from the interaction between the inherent properties of the linguistic material and the ideal norm [Russian: *zadanie*, 'design, intention, pattern'] imposed by the meter" (Zhirmunsky 1966 [1925]: 12; emphasis added from the 1921 edition cited in the footnote). <sup>14</sup> In 1925, he explained that "the actual phonetic shape of verse is determined by its metrical structure only in part, and its poetic rhythm is always a compromise resulting from the resistance shown by the linguistic material to the rules of artistic composition" (1966 [1925]: 22; tr. mod.). <sup>15</sup> Tomashevsky objected that

<sup>&</sup>lt;sup>12</sup> "Невозможно дать точное объективное определение стиха, невозможно наметить основные признаки, отделяющие стих от прозы" (Tomashevsky 1923: 7).

<sup>&</sup>lt;sup>13</sup> Kolmogorov and Prokhorov (1968: 409–426) classified stresses based on their intensity, yet their detailed taxonomy was never used to delineate either a typology or the evolution of verse rhythm. Poets also utilize additional methods to further distinguish verse rhythm from natural language ("prose") rhythm, including columnar and "staircase" [лесенка] layouts (Mayakovsky), variations in font and idiosyncratic punctuation (Tsvetaeva), and the use of special diacritics (Selvinsky).

<sup>&</sup>lt;sup>14</sup> "Ритм есть *реальное чередование* ударений в стихе, как результат взаимодействия естественных свойств языкового материала и идеального метрического задания" (Zhirmunsky 1921: 98 note 4; 1925: 7).

<sup>&</sup>lt;sup>15</sup> "...реальная звуковая форма стиха подчиняется метрической композиции лишь в некоторых своих элементах, и стихотворный ритм всегда является компромиссной формой, возникающей в результате сопротивления материала законам художественной композиции" (Zhirmunsky 1925: 18).

we should not speak of the resistance but of the "arrangement of the linguistic capabilities". <sup>16</sup>

The dilemma of meter and rhythm can be solved differently. As Maksim Kenigsberg wrote in 1923, "Verse in its essence is not a physical, but a semiotic phenomenon". Verse is a sign, and, in the same way, meter and rhythm are signs – this was the position of the "phenomenological" wing of the Moscow Linguistic Circle: in particular, Kenigsberg, Nikolai Zhinkin, and Grigorii Vinokur. Tynianov also gave eloquent examples of meter as a sign, such as incomplete or omitted lines (Tynianov 1924: 22 et passim; 1977: 60; cf. Ju. Lotman 1970: 66; 1977 [1970]: 51).

Semiotically speaking, any sign is "a material formation discernible against its background" the background of rhythm; rhythm is a sign against the background of meter; both are interrelated signs against the background of natural speech. This is why the initial object of analysis for a computer and a human analyzer is the rhythm of natural speech. Thus, a rhythmic and metric model of verse can be based on automated accentoriented morphological text analysis. This enables us to analyze poetic texts written in languages with variable stress, such as Russian (Pilshchikov, Starostin 2011: 133; 2015: 93–94).

How is all this related to the processes underlying the generation and reception of poetic speech? Let us look at how Tomashevsky envisaged this problem. His main idea was that the synthesis of verse proceeds from meter to rhythm while the analysis proceeds from rhythm to meter:

When initially conceiving a poem, the poet adopts a metrical scheme that he feels is a kind of rhythmical-melodic contour, a framework into which words are "inserted".

As it is realized in words, the rhythmical impulse finds expression in the actual rhythm of individual lines. [...]

The listener perceives the rhythm in inverse order. He is initially confronted with the actual verse-line rhythm. Then, under the impression of the reiteration of rhythmical configurations, due to his perception of a sequence of verse lines, the listener grasps the rhythmical impulse [...]. At a still higher degree of

<sup>16</sup> Russian: "организация языковых возможностей" (Tomashevsky 1929: 49).

 $<sup>^{17}\,\,</sup>$  "...стих в самой своей сущности есть явление не физическое, а знаковое" (Kenigsberg 1994 [1923]: 163).

<sup>&</sup>lt;sup>18</sup> Russian: "материальное образование, отличающееся от фона" (Zhinkin 1961: 159).

abstraction from the rhythmical pattern he grasps the metrical scheme which may be uncovered by scanning.<sup>19</sup>

Rhythmical impulse is Osip Brik's term, which other Formalists accepted.<sup>20</sup> While Tomashevsky wrote about the rhythmical impulse, which is realized both during the creation of the poem and during its perception, Zhirmunsky applied the term "rhythmical impulse" and its synonym "rhythmical design" [ritmicheskoe zadanie] to the process of creating the poem, whereas to describe the process of its perception he used the term "rhythmic inertia" [ritmicheskaja inertsija] (Zhirmunsky 1925: 67, 71; 1966 [1925]: 67, 71). Jakobson, in his work on Czech verse, contrasted two types of realization of the "rhythmical tendency", distinguishing between "rhythmic inertia" [rytmická setrvačnost] (the tendency as it is realized "in relation to the previous verse lines") and the "rhythmical impulse" (the tendency as it is realized "in relation to the following verse lines") (Jakobson 1935: 221). Apparently, this is what Tynianov referred to as the "progressive-regressive rhythmical property of meter" (Tynianov 1981 [1924]: 49).<sup>21</sup>

The concept of *rhythmical impulse* describes a stochastic, not deterministic, norm (Červenka 1984: 30). Scholars of Russian verse have defined this phenomenon statistically. Jakobson distinguished between rhythmical constants (the basis of meter), rhythmical tendencies (the basis of rhythmical impulse), and the autonomous elements of rhythm (Jakobson 1930; 1979 [1930]). Kiril Taranovsky discerned metrical constants, dominants, and rhythmical tendencies (Taranovsky 1953: 1–45; 2020; Gasparov 1974: 14, 18–19, 76–77, et al.; 1980 [1973]: 1). Taranovsky's *stressing profile* (as a

 $<sup>^{19}</sup>$  "Поэт, замышляя стихотворение, задается метрической схемой, которую он ощущает в качестве некоторого ритмико-мелодического рисунка, в пределах которого «укладываются» слова.

Воплощаясь в слове, ритмический импульс находит выражение в конкретном ритме отдельных стихов. [...]

Слушатель воспринимает ритм в обратном порядке. Сперва ему представляется конкретный ритм стиха. Затем, под впечатлением повтора ритмической линии, в результате восприятия серии стихов, слушатель улавливает ритмический импульс [...] Еще более абстрагируя ритмический строй, он обнаруживает обнажаемую скандовкой метрическую схему" (Tomashevsky 1923: 83).

<sup>&</sup>lt;sup>20</sup> See Brik 2012: 535–536 (Marina Akimova's note).

<sup>&</sup>lt;sup>21</sup> Сf.: "В этом прогрессивно-регрессивном ритмическом свойстве метра – одна из причин, почему он является *главнейшим* компонентом ритма" (Tynianov 1924: 30; original emphasis).

particular case of a rhythmical tendency)<sup>22</sup> is also a statistical characteristic, but it does not always reflect the differences between individual types or patterns (or, to use Andrei Kolmogorov's metaphor, "images") of the meter<sup>23</sup> (see Dobritsyn 2016: 35–38).<sup>24</sup>

From a theoretical point of view, however, the question is not that simple. What is objectively given, and what is subjectively constructed? Is rhythm given initially? Then meter is a post-factum construction. Or vice versa, is meter a given entity and rhythm a mere construction?

Consider the definitions of meter and rhythm proposed by Russian scholars, starting from the prominent symbolist poet and verse theorist Andrei Belyi: "By the rhythm of the poem we mean the symmetry of deviations from the meter [...]".25 Later, researchers pointed out the interrelation between meter and rhythm. This interrelation may be conceived as a "descent" from meter to rhythm (Tomahevsky, Zhirmunsky). In his 1923 treatise, Tomahevsky wrote: "[...] meter is the principle of compatibility of verse lines, and "rhythm is a real sound form, the actual arrangement of quantitative relations of pronunciation for each individual verse-line"; meter is an "abstract scheme", while rhythm is a concrete individual form, a "real form".26 Zhirmunsky added: "[...] meter is a general law governing the alternation of strong and weak sounds, [while] rhythm embraces concrete particular cases of application of this law, the variations of the main metric scheme" (1966 [1925]: 23; tr. mod.).27 In Juri Lotman's structural poetics this thesis was later reformulated in terms of linguistic and information theory dichotomies – "langage vs. parole", "system/

<sup>&</sup>lt;sup>22</sup> A stressing profile of the meter in a single poem or a group of poems is the percentage of non-skipped stresses on each ictus (Taranovsky 1953: 4 et passim; 1971; 1980 [1971]; Taranovsky, Prokhorov 1982: 156).

<sup>&</sup>lt;sup>23</sup> On the "*image of the meter*" ("*образ метра*") see Kolmogorov, Prokhorov 1963: 84–85; Kolmogorov 2015 [1961]: 239–243.

<sup>&</sup>lt;sup>24</sup> For further discussion see Gasparov 2015: 12, 16; Pilshchikov 2019: 66–68.

 $<sup>^{25}</sup>$  "Подъ ритмомъ стихотворенія мы разумѣемъ симметрію въ отступленіи отъ метра [...]" (Belyi 1910: 396).

<sup>&</sup>lt;sup>26</sup> "...метр есть принцип совместности стихов [...] Ритм – реальная форма звучания, действительный порядок расположения количественных отношений произношения для каждого стиха в отдельности" (Tomashevsky 1923: 44, 66).

<sup>&</sup>lt;sup>27</sup> "...метр есть общий закон чередования сильных и слабых звуков, ритм обнимает конкретные частные случаи применения этого закона, вариации основной метрической схемы" (Zhirmunsky 1925: 11).

grammar vs. text", and "code vs. message" (Ju. Lotman 1972: 46–59; 1976 [1972]: 44–55).

The same interrelation may be conceived as an "ascent" from rhythm to meter, as in the above-quoted passage from Tomahevsky or in the verse studies of the eminent mathematician Andrei Kolmogorov, who wrote: "By *meter* I mean a regularity of rhythm which is distinct enough to arouse: a) the expectation of its confirmation in further lines, b) a specific experience of 'irregularity' when [this regularity] is violated".<sup>28</sup>

#### 3. Mihhail Lotman has introduced a helpful distinction:

All approaches to meter can be divided into two main groups: I will call these respectively a priori and a posteriori. In accordance with the a priori approach, meter precedes [...] the poetic text. Meter is realized in a poem, the competent reader recognizes it, and the researcher describes it. [...] According to the a posteriori approach, meter does not precede text but is its immanent quality, the competent reader perceives it [...], the researcher makes it explicit. (M. Lotman 2008a: 32–33)<sup>29</sup>

In the final analysis, the difference between metrics discerned a priori and metrics discerned a posteriori may be reduced to the problem of interrelation between meter and rhythm, Mihhail Lotman argues. For the a-priori approach, meter has a primary function, while rhythm is its realization. In contrast, for the a-posteriori approach, rhythm is the primary reality, while meter is a secondary formation. The researcher suggests transferring this problem from the methodological sphere to the ontological realm and interpreting the difference described above not as two different *approaches* to meter but as two drastically different *types* of metricality. If we are dealing with well-known structures interpreted unequivocally by both the author and the reader, Lotman calls such

<sup>&</sup>lt;sup>28</sup> "Под *метром* я понимаю закономерность ритма, обладающую достаточной определенностью, чтобы вызывать: а) ожидание ее подтверждения в следующих стихах, б) специфическое переживание "перебоя" при ее нарушениях" (Kolmogorov 1963: 64; original emphasis).

<sup>&</sup>lt;sup>29</sup> "Существует два основных подхода к экспликации стихотворного метра, назовем их априорным и апостериорным. С точки зрения априорного подхода стихотворный метр предшествует [...] поэтическому тексту и реализуется в нем; компетентный читатель узнает этот метр, исследователь —описывает его. [...] С точки зрения апостериорного подхода метр не предшествует тексту, а является его имманентным свойством, компетентный читатель это свойство тем или иным образом улавливает [...], исследователь его эксплицирует" (М. Lotman 2008b: 25).

meters *explicit*. If the structure is new and is not unequivocally recognized, such meters are *implicit*:

Usually the difference between explicit and implicit meter is reflected already in their names. In the first case, we are dealing with nomination (iambus, hexameter), in the second case, with description; for instance, the "meter of Russian fairy tales", "bylina verse", even such a splendid name as the "verse meter of Songs of the Westerns Slavs", that is, the meter Pushkin used in his cycle "Songs of the Westerns Slavs". (M. Lotman 2008a: 33)<sup>30</sup>

Shapir combined the a-priori and a-posteriori approaches. For him, "the place of a-priori monism (fact as an epiphenomenon of an ideal law, rhythm as a derivative of meter) or a-posteriori monism (law as an abstraction from the only real factual material, meter as a derivative of rhythm) must be taken by *absolute* monism". Shapir's conception of meter was developed in his article "Metrum et rhythmus sub specie semioticae" (1990), where he proposed a revision of the linear hierarchy of meter and rhythm, that is the views of rhythm as a system of deviations from meter, or rhythm as a particular realization of the metric scheme. Shapir conceived of two processes that run in opposite directions: "metrization" of rhythm and "rhythmization" of meter.

For Andrei Belyi, Tomashevsky and Zhirmunsky, meter was the law, while rhythm was a tendency; for Shapir, both rhythm and meter are tendencies, and they cannot be deduced the one from the other. Rhythm is not a particular case of meter because rhythm, which may violate meter, can be independent of it. Meter, in turn, cannot be deduced from rhythm because rhythmically identical lines can be interpreted differently in different metrical contexts or, to put it another way, the rhythmic forms of different meters can be isomorphic. In this case, we are dealing with metrical ambiguity (Jakobson 1922: 229; Tomashevsky 1929: 15 et passim; Shengeli 1940: 79–80; Bobrov 1964: 123; Scherr 2023).

<sup>&</sup>lt;sup>30</sup> "Часто различие между эксплицитным и имплицитным размером отражено уже в названии: если эксплицитные метры, как правило, обозначаются общими именами конвенционального характера (ямб, хорей и т. п.), то имплицитные формы часто или вообще не имеют общепринятого названия, или название их имеет характер дескрипции ("русский сказочный размер", "былинный стих", "стих Маяковского" и даже "Стих «Песен западных славян»")" (М. Lotman 2008b: 28).

<sup>&</sup>lt;sup>31</sup> "...место монизма априорного (факт как эпифеномен идеального закона, ритм как производная метра) или монизма апостериорного (закон как отвлечение от единственно реального фактического материала, метр как производная ритма) должен занять монизм абсолютный" (Shapir 1990: 69; 2000: 100; original emphasis).

If the entire poem consists of such metrically ambiguous lines, it would be a heterometric text, as in Aleksandr Polezhaev's "Song of the Dying Swimmer" ("Pesn' pogibajushchego plovtsa", 1828). Aleksandr Iliushin cited it as a "genuinely bimetrical" poem<sup>32</sup> because its meter may be perceived as 2-foot trochee (trochaic dimeter)  $-\cup$ -( $\cup$ ) or as 1-foot anapest (anapestic monometer)  $\cup$  $\cup$ -( $\cup$ ):

Vót mrachítsja Svód lazúrnyj! Vót krutítsja Véter búrnyj! [...] Na ravnínach Vód zerkáľnykh, Na puchínakh Pogrebáľnykh Ja skoľzíl [...]

If the first syllable is unstressed, the anapestic interpretation  $\cup \cup \stackrel{\cdot}{-}(\cup)$  does not exclude the trochaic interpretation, in which the first unstressed syllable is perceived as a legitimate omission of accent on the first foot:  $-\cup\stackrel{\cdot}{-}(\cup)$ . If the first syllable is stressed, the trochaic interpretation  $\stackrel{\cdot}{-}\cup\stackrel{\cdot}{-}(\cup)$  does not exclude the anapestic interpretation, in which the first stressed syllable is perceived as extra-schematic, which is no less legitimate:  $\stackrel{\cdot}{\cup}\cup\stackrel{\cdot}{-}(\cup)$ .

These are two ways of "metrization" of the same rhythm. Other examples of "metrization" are logaoedic verses, especially non-classical logaoedic meters, such as Osip Mandelshtam's "Today is a bad day..." ("Segodnja durnoj den'...", 1911), where a particular rhythmic pattern  $\bigcirc$  ' $\bigcirc$  ' is reiterated throughout the poem and thus becomes its metrical scheme  $\bigcirc$ — $\bigcirc$ — $\bigcirc$ —:

Segódnja durnój dén': Kuznéchikov khór spít, I súmrachnykh skál sén' – Mrachnéj grobovýkh plít. Mel'kájushchikh strél zvón I véshchikh vorón krík... Ja vízhu durnój són, Za mígom letít míg. [...]

<sup>&</sup>lt;sup>32</sup> Russian: "образец подлинной биметрии" (Iljushin 1988: 67).

The opposite transformation may be called "rhythmization" of meter. For instance, in Joseph Brodsky's "Strophes" of 1968, the meter of the initial line ( $Na\ proshchán'je\ ni\ zvúka$ ) is 2-foot anapest  $\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$ , as is the meter of the entire poem:  $\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$ . However, the meter of a rhythmically identical and phonetically similar initial line of his "Strophes" of 1978 ( $Napodób'je\ stakána$ ) is not 2-foot anapest but the 3-ictus dolnik  $\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$  because the entire poem is written using this meter:  $(\bigcirc)\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$  However, not only this line but many other lines of 3-ictus dolnik in this poem are isomorphic to 2-ictus dolnik and, in particular, to its rhythmic form, which is isomorphic to 2-foot anapest. Enticingly, the 1978 "Strophes" feature a whole stanza, all the lines of which are isomorphic to 2-foot anapest:

Neuméstnej, chem jáshcher v filarmónii, víd nàs vdvojóm v nastojáshchem. Tèm vernéj udivít obitátelej závtra razvedjónnaja zdés' síl'nych chúvstv dinozávra i kiríllitsy smés'.

This *rhythmic quotation*, however, refers to a *metrical* precedent (Brodsky's own poem, which was written ten years earlier and which is referred to in the title and the initial line of the later poem:  $\underline{Na\ proshchán'je}\ ni\ zvúk\underline{a} \rightarrow \underline{Napodób'ie\ stakána}$ ).<sup>34</sup>

Shapir's "metrization of rhythm" and "rhythmization of meter" partly correspond to the less commonly known concepts of *logaedizatsija* ("logaoedization") and *verlibrizatsija* ("vers-libre-ization") introduced by Vadim Rudnev (V. Rudnev 1982; 1986).<sup>35</sup> Indeed, transformation of rhythm into meter moves towards logaoed, while transformation of meter into rhythm moves towards *vers libre*. In the Brodsky example, dolnik is a more *libre* meter than anapest

The only line that violates the meter is *kotór<u>ogo</u> ne perekrichát*: it features an interval of six unstressed syllables, whereas a maximum of only five is allowed by the metrical scheme.

Roman Jakobson called a poet's use of a meter, which is closely associated with a particular text or group of texts, "a kind of metrical quotation" (Jakobson 1938: 246; 1979 [1938]: 465; Rudy 1976: 506).

<sup>&</sup>lt;sup>35</sup> Vadim Rudnev (1997: 52–53, 148–150) understands these terms in a broader culturological sense; I prefer to remain in the realm of metrics.

because it tolerates a wider variation of inter-ictic intervals (compare Gasparov 1974: 44–45; Skulacheva 2012: 48). Conversely, maintaining 100% rhythmic uniformity in an iambic poem transforms iamb into logaoedic or paeonic verse.<sup>36</sup>

On the way to logaoedization, meters such as dolnik oscillate between logaoedic and syllabotonic verse. One instance is the "Esenin type" of 3-ictus dolnik, in which Forms I and III predominate – typically featuring disyllabic anacruses (Gasparov 1968a: 100-102; 1974: 241-242; Scherr 1986: 149). Form III is distinctively dolnik:  $(\cup)(\cup)-\cup\cup-(\cup)$ . Form I with a disyllabic anacrusis is isomorphic to 3-foot anapest:  $\cup\cup-\cup\cup-(\cup)$ . Sergei Esenin's 28-line dolnik poem "Don't torture me with coolness..." ("*Ty proxládoj menjá ne múchaj, I ne spráshivaj, skól'ko mne lét*", 1923), highlighted as typical by Gasparov (1968a: 101), comprises 21 anapestic lines (75%) and only seven specifically dolnik lines (25%). Is 25% sufficient to classify this text as dolnik, or should it be considered "anapest with sporadic irregularities" (Gasparov 1968a: 104)?

The threshold – i.e., the borderline between two meters – may vary between different poets or even within the works of the same poet across different periods. Sergei Liapin proposed the following method (qtd in Pilshchikov, Starostin 2015: 100): in any given corpus, tally the number of texts containing 5±5%, 15±5%, 25±5% ....... 85±5%, 95±5%, 100% of bimetrical forms (in our example, Form I of 3-ictus dolnik, which is isomorphic to anapest, amphibrach or dactyl). The distribution of these forms usually shows two peaks on the resulting diagram (see Chart 1). Among Esenin's lyrical poems that contain at least one line of the " $(\cup)(\cup)-\cup\cup-(\cup)$ " rhythmic form, the most common types are poems that contain either 100% of such lines (genuine ternary meters) or 75% ("typical" dolniks).

On Russian paeons see M. Lotman 1995: 310–314.

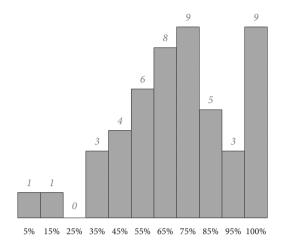


Chart 1. Number of poems containing a particular percentage of "ternary" lines in Esenin's poems

Thus, the poem Gasparov singled out is indeed typical for Esenin. He composed very few poems that contain 90–99% anapestic / amphibrachic / dactylic lines. They can be considered as written in irregular ("loosened") ternary meter or what Petr Rudnev called a "transitional metrical form" (TMF) between ternary meter and dolnik:

TMF is a construction of meter, such that there are some violations of one of the principal features of a given verse form. Moreover, these sporadic violations [...] do not yet alter the *quality* of verse of that type. The main task in describing a TMF is to determine the "threshold" at which quantity transforms into quality.<sup>37</sup>

If we create a diachronic version of the same diagram by charting the poems year by year according to their composition dates, the dynamics will reveal that "typical" dolniks were not predominant in Esenin's oeuvre from the outset. Initially, he favored more "contrastive" dolnik profiles, later increasing the proportion of Form I lines in his dolniks. In the beginning, 25% of specifically dolnik lines were insufficient for him to distinguish dolnik from anapest and

 $<sup>^{37}</sup>$  "ПМФ — это такая конструкция стихотворного размера, в которой налицо некоторое количество нарушений какого-либо из главных признаков данного стихового вида. Причем эти отдельные нарушения [...] еще не изменяют *качества* стиха данного вида. При описании ПМФ главная задача состоит в том, чтобы определить тот «порог», при котором количество переходит в качество" (P. Rudnev 1972: 227; original emphasis).

dactyl, but as the new meter became recognizable, he increasingly adopted what later came to be known as "Esenin's type". It should be emphasized that 75% is not a theoretically derived figure but an empirically established threshold specific to the corpus of Esenin's poems written in dolnik and ternary syllabotonic meters. Other corpora may have different thresholds.

To summarize, contemporary Russian verse theory conceptualizes meter as a "tendency" or "potentiality". Since meter is generally not preconceived (at least from the reader's perspective), we are not observing a given meter but rather the metrization of rhythm. Consequently, every poetic line is potentially heterometric. In the context of the entire poem, such metrical ambiguity may be disambiguated (remaining, however, a factor of rhythm), manifested as a metrical tendency (as in TMF) or solidified into a metrical law (in genuine heterometric texts).

**4.** The statistical approach to rhythm and meter was countered by the axiomatic generativist approach, emerging at the turn of the 1960s and 1970s. Generative metrics examines the rhythm of specific meters not quantitatively but qualitatively, by formulating "correspondence rules" between the two structures (meter and rhythm) to distinguish between "well-formed" and "ill-formed" lines.

The correspondence rules for Russian binary meters were first outlined in Andrei Kolmogorov's and Aleksandr Prokhorov's article "On the Foundations of Russian Classical Metrics" (1968: 404–406). Mihhail Lotman (1995a: 270–278, 1995b: 340–343) further clarified and expanded upon them by positing seven correspondence rules (CR):<sup>39</sup>

- (CR1) One and only one syllable corresponds to any weak (W) and strong (S) position.
- (CR2) An unstressed syllable can always correspond to any W position. The possibility for a stressed syllable to occupy this position is governed by the special restrictions formulated in CR5.
- (CR3) A stressed syllable can always correspond to any S position. The possibility for an unstressed syllable to occupy this position is governed by the special restrictions formulated in CR4.

See Pilshchikov, Starostin 2015: 99–102 for more details.

Renumbered here according to Polilova, Pilshchikov, Belousova 2022: 129.

(CR4) An unstressed syllable of a polysyllabic word can correspond to an S position only if the stressed syllable of this word occurs in another S position.

(CR5) Only a stressed syllable of a monosyllabic word can correspond to a W position.

(CR6) Only a stressed syllable can correspond to the last S position.

(CR7) A syntagmatic stress can correspond only to an S position.

Mutatis mutandis these rules apply to all Russian syllabotonic meters. Specifically, for ternary meters, CR5 should state "...a monosyllabic or disyllabic word..." instead of "...a monosyllabic word...". This adaptation aligns with "the Jakobson-Tomashevsky thesis about the impossibility of shifting the accent in Russian [poetry] within a word" (Erlich 1965 [1955]: 220). Jakobson formulated this rule specifically for binary meters, in which "a stressed syllable can realize a temps faible [...] and, vice versa, a stressed syllable [can realize] a temps fort [...] provided that these syllables do not belong to the same word [...]. To put it another way, the word cannot be rhythmically trans-accentuated". Tomashevsky proposed a more general rule applicable to any foot length: "a word with an extra-schematic stress should be shorter than a foot period". Therefore, in Russian syllabotonic verse:

[N]on-metrical stress may fall on words that fit within a metrically unstressed interval and do not extend to the metrically stressed syllables. To put it another way, in classical [Russian] verse, non-metrical stresses are permitted only on monosyllabic words in iamb and trochee, while in dactyl, anapest, and amphibrach they are permitted on both monosyllabic and disyllabic words.<sup>42</sup>

<sup>&</sup>quot;...ударный слог может осуществить слабое время [...] и напротив безударный – [...] сильное время стиха [...], но при условии, чтобы эти слоги не принадлежали одному и тому же слову [...]. Иначе говоря, слово не может быть ритмически переакцентовано" (Jakobson 1923: 29).

<sup>&</sup>lt;sup>41</sup> "Следует вывести более общий закон: слово с дополнительным [i.e., сверхсхемным – IP] ударением должно быть короче стопного периода" (MLK 1919: fol. 56; qtd in Pilshchikov 2017b: 161).

<sup>42 &</sup>quot;...неметрическое ударение приходится на слова, которые целиком умещаются в метрически неударный интервал, не распространяясь на метрически ударные слоги. Иначе говоря – для ямба и хорея неметрическое ударения мыслимы в классическом стихосложении только на односложных словах, для дактиля, анапеста и амфибрахия,

**5.** Based on the discussion above, I propose the following constructive definition of meter in Russian verse:<sup>43</sup>

- (1) **Meter:** A pattern of strong and weak syllabic positions within a verse line, with each position occupied by one syllable.
- (2) **Strong positions (ictuses):** These are syllabic positions within any pattern where word stresses *may* fall on words of i+1 or more syllables, where  $i \in \mathbb{N}_0$  ( $\mathbb{N}_0$  being the set of natural numbers including zero and i being the number of syllables in a constant or maximum inter-ictic interval see Rules 3 and 4 below).
- (3) **Weak positions (inter-ictic intervals):** These are syllabic positions within any pattern where word stresses *cannot* fall if the words are of i+1 or more syllables.
- (4) **Preference Rule:** If a line fits more than one meter, preference is given to the meter with less variation ( $\nu$ ) in the length of inter-ictic intervals (i).
- (5) **Uniform Application:** Rule 4 is applicable to a particular line only if it also applies uniformly to all other lines in the poem.

Rule 2 specifies the conditions for generating the rhythm of schematic word stresses, and Rule 3 for extra-schematic stresses. Both rules together describe the distribution of word boundaries. Rule 4 epitomizes the notion of metrical hierarchy,<sup>44</sup> and Rule 5 asserts the insufficiency of a purely "horizontal" analysis of verse structure, which must always be corrected by a "vertical" analysis within the metrical context.

Rule 5 also applies to metrically ambivalent lines where *both* metrical interpretations result in the same variation ( $\nu$ ) of the length of inter-ictic intervals (i). Thus, certain rhythmic forms of binary meters are isomorphic to those of ternary meters. In both binary and ternary meters, the variation in the length of inter-ictic intervals is zero ( $\nu$  = 0). In a homometrical context the

на односложных и двухсложных" (Tomashevsky 1923: 62). Compare Gasparov 1974: 4. For more details see Pilshchikov 2019: 62–65.

<sup>&</sup>lt;sup>43</sup> Compare Pilshchikov 2017a: 20. Presented here in a revised form.

<sup>&</sup>lt;sup>44</sup> Gasparov wrote that "each stricter meter on the steps of this staircase is inevitably an individual rhythm of a freer meter" ["каждый более строгий размер на ступеньках [такой] лестницы неизбежно является частным ритмом более свободного размера"] (Gasparov 1974: 308).

metrical ambivalence of this type of verse is considered a rhythmical rather than metrical characteristic.

If the metrical repertoire includes iambic, trochaic, dactylic, amphibrachic, anapestic, paeonic, dolnik, and taktovik meters, 45 then  $1 \le i \le 3$ . Expanding it to include meters based on a pentasyllabic foot (hyperpaeon) and a hexasyllabic foot (hexon) 46 adjusts the range to  $1 \le i \le 5$ . Adding non-classical logaoedic meters of the "Todáy is a bád dáy" type further extends the range to  $0 \le i \le 5$ . Regarding tonic verse (also referred to as "accentual verse"), the question of the maximum volume of its inter-ictic interval remains. For simplicity, I will consider this interval theoretically unrestricted ( $i \in \mathbb{N}_0$ ), though it does have an empirical limit (P. Rudnev 1989: 97; M. Lotman 1995: 330, 324 fn. 75). In examples reviewed by Russian verse scholars, the unstressed interval varies from 0 to 8 syllables (Kolmogorov, Kondratov 1962: 70–71; Zhirmunsky 1964: 12; Gasparov 1974: 420). Longer intervals are also possible (Pilshchikov 2022: 306–307), but the longest documented so far – a ten-syllable interval in Maiakovsky's "Those Who Sank in Meetings" ("Prozasedavshiesja", 1922) – contains a nonce word (Fedotov 2010: 30–31).

The proposed constructive definition is applicable to various versification systems used in the Russian poetic tradition. They differ in the type of *metrical period* – the syllabic distance from one ictus to the next, encompassing both the ictus and the inter-ictic interval. I introduce this term by analogy with Tomashevsky's concept of "an *accentual period*", defined as "the distance from one stress to the next, measured in syllables". A caveat, consistent with the views of the term's originator, is that the relevant measure is the distance, in syllables, from one *metrical (schematic)* stress to the next, skipped or unskipped, i.e. from one ictus to the next.

In syllabotonic (syllabic-accentual) verse, the metrical period (traditionally referred to as "foot") has a fixed and constant inter-ictic interval, consistent across different feet. In logaoedic verse, the length of inter-ictic intervals within the metrical period is also fixed, but it is not constant, varying in different feet according to a specific pattern. In dolniks and taktoviks, the length of interictic intervals within the metrical period is variable but confined within a defined range; each specific meter has a predetermined amplitude, delineating

<sup>&</sup>lt;sup>45</sup> On taktovik see Gasparov 1968b; 1974: 294–371; 1978.

<sup>46</sup> On the meters characterized by foot lengths exceeding four syllables, refer to Plungjan 2007 and Orlitsky 2018.

<sup>&</sup>lt;sup>47</sup> "...ударный период, т.е. расстояние в слогах от ударения до ударения" (Tomashevsky 1923: 14; original emphasis).

a minimum and maximum number of syllables within which this interval can fluctuate. In accentual verse, the length of inter-ictic intervals in the metrical period is unrestrictedly variable. It follows from rules 2 and 3 that extraschematic stresses (i.e., stresses on weak positions in words with a syllabic length  $\leq i$ ) and skipped stresses on ictuses are permissible in all these meters.<sup>48</sup>

Gasparov regarded dolniks and taktoviks as "transitional" meters in the evolution from syllabic-accentual verse to "pure" accentual verse. <sup>49</sup> I would propose considering them a separate type of verse – what Mihhail Lotman (1998: 237) calls accentual-syllabic, as opposed to syllabic-accentual or syllabotonic – and suggest abandoning the notion of "transitional" systems altogether. Nonetheless, whether to categorize dolniks and taktoviks as a special versification system ultimately hinges on the *theoretical* definition of what constitutes a "versification system",<sup>50</sup> a topic that falls outside the scope of this article. <sup>51</sup>

### References

Akimova, Marina Vjatcheslavovna 2023. M. I. Shapir i Ju. M. Lotman o teorii stikha. In: Kovshova, Maria L. (ed.), *Jazyk – tekst – smysl: Pamjati Maksima Il'icha Shapira*. Moskva: Kantsler, 18–32.

Bailey, James 1973. The Accentual Verse of Majakovskij's Razgovor s fininspektorom o poèzii. In: Jakobson, Roman; Van Schooneveld, Cornelis H.; Worth, Dean S. (eds.), *Slavic Poetics: Essays in Honor of Kiril Taranovsky*. The Hague, Paris: Mouton, 25–31.

Belyi, Andrei 1910. Simvolizm: Kniga statej. Moskva: Musaget.

Bobrov, Sergei Pavlovich 1964. K voprosu o podlinnom stikhotvornom razmere pushkinskikh "Pesen zapadnykh slavjan". In: *Russkaja literatura* 3, 119–137.

<sup>&</sup>lt;sup>48</sup> It is often claimed that schematic stresses cannot be skipped in pure tonic verse. This belief is either a prejudice or an oversimplification (M. Lotman 1995: 332; 1998: 224; compare Bailey 1973: 29–31; Gasparov 1974: 428). For a detailed discussion see Pilshchikov 2022.

<sup>&</sup>lt;sup>49</sup> See Gasparov 1968a: 60–61, 106; 1968b: 83; 1974: 16, 30, 220–222, 244, 246, 293, 305–306; 2001: 130, 133, 135. A similar definition is found in Zhirmunsky's late article (1964: 12).

<sup>50</sup> See the discussion in M. Lotman 1998.

<sup>&</sup>lt;sup>51</sup> I extend my sincere thanks to Ronald Vroon for his valuable edits and suggestions on this article, which was written with the support of the Estonian Research Council (PRG319).

- Brik, Osip Maksimovich 2012. Ritm i sintaksis (materialy k izucheniju stikhotvornoj rechi). Ed. with an introduction and notes by Marina V. Akimova. In: Prokhorov, Aleksandr V.; Skulacheva, Tatiana V. (eds.), *Slavjanskij stikh* IX. Moskva: Rukopisnye pamjatniki drevnej Rusi, 501–550.
- Bukhshtab, Boris Jakovlevich 1973. Ob osnovakh i tipakh russkogo stikha. In: *International Journal of Slavic Linguistics and Poetics* 16, 96–118.
- Červenka, Miroslav 1984. Rhythmical Impulse: Notes and Commentaries. In: *Wiener Slawistischer Almanach* 14, 23–53.
- Dobritsyn, Andrei 2007. Les travaux sur la poésie russe de Maksim Šapir. In: *Revue des études slaves* 78(4), 495–506.
- Dobritsyn, Andrei 2016. Rhythmic entropy as a measure of rhythmic diversity (The example of the Russian iambic tetrameter). In: *Studia Metrica et Poetica* 3(1), 33–52. https://doi.org/10.12697/smp.2016.3.1.02
- Eikhenbaum, Boris Mikhailovich 1922. *Melodika russkogo liricheskogo stikha*. (Sborniki po teorii poeticheskogo jazyka s.n.) Peterburg: Opojaz.
- Erlich, Victor 1965 [1955]. *Russian Formalism: History Doctrine*. Second revised edition. The Hague: Mouton.
- Fedotov, Oleg Ivanoich 2010. Stikh, prorvavshij gromadu let: O stikhotvornoj poetike Vladimira Majakovskogo. Moskva: Moskovskie uchebniki.
- Gasparov, Mikhail Leonovich 1968a. Russkij trekhudarnyj dol'nik XX veka. In: Kholshevnikov, Vladislav E. (ed.), *Teorija stikha*. Leningrad: Nauka, 59–106.
- Gasparov, Mikhail Leonovich 1968b. Taktovik v russkom stikhoslozhenii XX v. In: *Voprosy jazykoznanija* 5, 79–90.
- Gasparov, Mikhail Leonovich 1972a. Soizmerimosť. In: Surkov, Aleksei A. (ed.), *Kratkaja literaturnaja entsiklopedija*, vol. 7. Moskva: Sovetskaja entsiklopedija, 43–44.
- Gasparov, Mikhail Leonovich 1972b. Stikh. In: Surkov, Aleksei A. (ed.), *Kratkaja literaturnaja entsiklopedija*, vol. 7. Moskva: Sovetskaja entsiklopedija, 197–198.
- Gasparov, Mikhail Leonovich 1974. Sovremennyj russkij stikh: Metrika i ritmika. Moskva: Nauka.
- Gasparov, Mikhail Leonovich 1978. Russkij bylinnyj stikh. In: Kholshevnikov, Vladislav E. (ed.), *Issledovanija po teorii stikha*. Leningrad: Nauka, 3–47.

Gasparov, Mikhail Leonovich 1980 [1973]. Quantitative Methods in Russian Metrics: Achievements and Prospects. In: Smith, Gerald S. (trans. and ed.). *Metre, Rhythm, Stanza, Rhyme*. (Russian Poetics in Translation 7). Colchester, Oxford: Holdan Books, 1–19.

- Gasparov, Mikhail Leonovich 2001. *Russkij stikh nachala XX veka v kommentarijakh*. 2nd enlarged ed. Moskva: Fortuna Limited.
- Gasparov, Mikhail Leonovich 2015. A. N. Kolmogorov v russkom stikhovedenii. In: Kolmogorov, Andrei Nikolaevich. *Trudy po stikhovedeniju*. Ed. by Aleksandr V. Prokhorov. Moskva: MTsNMO, 10–20.
- Iljushin, Aleksandr Anatol'evich 1988. *Russkoe stikhoslozhenie*. Moskva: Vysshaja shkola.
- Jaglom, Isaak Moiseivich 1980. Matematicheskie struktury i matematicheskoe modelirovanie. Moskva: Sovetskoe radio.
- Jakobson, Roman 1922. Brjusovskaja stikhologija i nauka o stikhe. In: *Akademicheskij tsentr Narkomprosa. Nauchnye izvestija*, vol. 2: *Filosofija. Literatura. Iskusstvo*. Moskva: GIZ, 222–240.
- Jakobson, Roman 1923. O cheshskom stikhe preimushchestvenno v sopostavlenii s russkim. (Sborniki po teorii poeticheskogo jazyka  $V_1$ ). Moskva, Berlin: Gosudarstvennoe izdateľstvo R.S.F.S.R.
- Jakobson, Roman 1930. O překladu veršů. In: *Plán* 2(1), 9–11.
- Jakobson, Roman 1935. Poznámky k dílu Erbenovu: II. O verši. In: *Slovo a slovesnost* 1(4), 218–229.
- Jakobson, Roman 1938. K popisu Máchova verše. In: Mukařovský, Jan (ed.), *Torso a tajemství Máchova díla: Sborník pojednání Pražského lingvistického kroužku*. Praha: Fr. Borový, 207–278.
- Jakobson, Roman 1979 [1930]. On the Translation of Verse. Trans. by Peter and Wendy Steiner. In: Jakobson, Roman. Selected Writings, vol. V: On Verse, Its Masters and Explorers. The Hague, Paris: Mouton, 131–134.
- Jakobson, Roman 1979 [1938]. Toward a Description of Mácha's Verse. Trans. by Peter and Wendy Steiner. In: Jakobson, Roman. Selected Writings, vol. V: On Verse, Its Masters and Explorers. The Hague, Paris, New York: Mouton, 433–485.
- Kenigsberg, Maksim Maksimovich 1994 [1923]. Iz stikhologicheskikh etjudov:
  1. Analiz ponjatija "stikh". Introduction and notes by Maksim I. Shapir. In: *Philologica* 1(1/2), 149–185.

- Klenin, Emily 2008. M. L. Gasparov and the Definition of Verse. In: *The Slavic and East European Journal* 52(2), 208–222.
- Kolmogorov, Andrei Nikolaevich 1963. K izucheniju ritmiki Majakovskogo. In: *Voprosy jazykoznanija* 4, 64–71
- Kolmogorov, Andrei Nikolaevich 2015 [1961]. Metr kak obraz: Vvedenie. In: Kolmogorov, Andrei Nikolaevich, *Trudy po stikhovedeniju*. Ed. by Aleksandr V. Prokhorov. Moskva: MTsNMO, 239–251.
- Kolmogorov, Andrei Nikolaevich; Kondratov, Aleksandr Mikhailovich 1962. Ritmika poem Majakovskogo. In: *Voprosy jazykoznanija* 3, 62–74.
- Kolmogorov, Andrei Nikolaevich; Prokhorov, Aleksandr Vladimirovich 1963. O dol'nike sovremennoj russkoj poezii (Obshchaja kharakteristika). In: *Voprosy jazykoznanija* 6, 84–95.
- Kolmogorov, Andrei Nikolaevich; Prokhorov, Aleksandr Vladimirovich 1968. K osnovam russkoj klassicheskoj metriki. In: Meilakh, Boris S. (ed.), *Sodruzhestvo nauk i tajny tvorchestva*. Moskva: Iskusstvo, 397–432.
- Lotman, Juri M. 1964. *Lektsii po struktural'noj poetike*, vyp. 1 (*Vvedenie, teorija stikha*). (Trudy po znakovym sistemam 1). Tartu: The University of Tartu Press.
- Lotman, Juri M. 1970. Struktura khudozhestvennogo teksta. Moskva: Iskusstvo.
- Lotman, Juri M. 1972. *Analiz poeticheskogo teksta: Struktura stikha*. Leningrad: Prosveshchenie.
- Lotman, Juri M. 1976 [1972]. *Analysis of the Poetic Text*. Ed. and trans. by D. Barton Johnson. Ann Arbor: Ardis.
- Lotman, Juri M. 1977 [1970]. *The Structure of the Artistic Text*. Trans. from the Russian by Gail Lenhoff and Ronald Vroon. (Michigan Slavic Contributions 7). Ann Arbor: University of Michigan.
- Lotman, Mihhail 1995a. Russkij stikh: osnovnye razmery, vkhodjashchie v evropejskij metricheskij fond. In: Pszczołowska, Lucylla; Urbańska, Dorota (eds.), *Europejskie wcorce metryczne w literaturach słowiańskich*. (Słowiańska metryka porównawcza VI). Warszsawa: Instytut Badań Literackich, 259–339.
- Lotman, Mihhail 1995b. The European Metrical Fund of Russian Poetry of the XVIII–XXth centuries. In: Pszczołowska, Lucylla; Urbańska, Dorota (eds.), *Europejskie wcorce metryczne w literaturach słowiańskich*. (Słowiańska metryka porównawcza VI). Warszsawa: Instytut Badań Literackich, 339–349.
- Lotman, Mihhail 1998. O sistemakh stikhoslozhenija (preimushchestvenno na materiale estonskogo i russkogo stikha). *Trudy po znakovym sistemam* 26, 201–255.

Lotman, Mihhail 2008a. Metre: The Unknown. In: Lotman, Mihhail; Lotman, Maria-Kristiina (eds.), Frontiers in Comparative Metrics: in memoriam Mikhail Gasparov: Conference abstracts, November 21–23, 2008, Tallinn and Tartu, Estonia. Tallinn: Tallinn University Press, 32–34.

- Lotman, Mihhail 2008b. Stanovlenie antichnykh razmerov v russkom stikhe: aspekty kognitivnoj metriki. In: Kroó, Katalin; Torop, Peeter (eds.), *Russian Text (19th Century) and Antiquity / Russkij tekst (19 vek) i antichnosť*. Budapest: L'Harmattan, 24–53, 392.
- MLK 1919 = The Archive of the Vinogradov Russian Language Institute of the Russian Academy of Sciences (Moscow). Fond 20. Ed. xr. 2.II: Minutes from the Meetings of the Moscow Linguistic Circle in 1919.
- Orlitsky, Jurij Borisovich 2018. Spondeika, giperpeony i metrostrofy: Daniil Andreev poet i teoretik stikha". In: Orlitsky, Jurij Borisovich, *Stikh i proza v kul'ture Serebrjanogo veka*. Moskva: YaSK, 569–586.
- Pilshchikov, Igor 2012. O filologickém odkazu Maksima Šapira a jeho stati "Přiblížení k obecné teorii verše". Trans. by Alena Machoninová. In: Česká literatura 60(3), 368–370.
- Pilshchikov, Igor 2017a. Ponjatija "stikh", "metr" i "ritm" v russkom stikhovedenii XX veka. In: *Trudy Instituta russkogo jazyka im. V. V. Vinogradova*, vol. XI: *Slavjanskij stikh*. Moskva. 12–30.
- Pilshchikov, Igor 2017b. Zasedanie Moskovskogo lingvisticheskogo kruzhka 1 ijunja 1919 goda i zarozhdenie stikhovedcheskikh kontseptsij O. Brika, B. Tomashevskogo i R. Jakobsona. In: *Revue des études slaves* 88(1/2), 151–175. https://doi.org/10.4000/res.956
- Pilshchikov, Igor 2019. Rhythmical Ambiguity: Verbal Forms and Verse Forms. In: *Studia Metrica et Poetica* 6(2), 53–73. https://doi.org/10.12697/smp.2019.6.2.02
- Pilshchikov, Igor 2021. Pojęcia "wiersz", "metrum" i "rytm" w rosyjskiej tradycji naukowej. Trans. by Bogusław Żyłko. In: *Forum Poetyki* 25, 86–103. https://doi.org/10.14746/fp.2021.25.30603
- Pilshchikov, Igor 2022. "Po tu storonu dol'nika": Bezudarnye ikty i sverkhskhemnye udarenija v russkom aktsentnom stikhe. In: *Kritika i semiotika* 1, 273–318.
- Pilshchikov, Igor; Starostin, Anatoli 2009. Problemy avtomatizatsii bazovykh procedur ritmiko-sintaksicheskogo analiza sillabo-tonicheskikh tekstov. In: Plungjan, Vladimir A. (ed.), *Natsional'nyj korpus russkogo jazyka 2006–2008: Novye rezul'taty i perspektivy*. Sankt-Peterburg: Nestor-Istorija, 298–315.

- Pilshchikov, Igor; Starostin, Anatoli 2011. Automated Analysis of Poetic Texts and the Problem of Verse Meter. In: Küper, Christoph (ed.), *Current Trends in Metrical Analysis*. (Littera: Studies in Language and Literature 2). Berlin: Peter Lang, 133–140.
- Pilshchikov, Igor; Starostin, Anatoli 2015. Reconnaissance automatique des mètres des vers russes: une approche statistique sur corpus. Trans. by Éliane Delente. In: *Langages* 199, 89–105. https://doi.org/10.3917/lang.199.0089
- Plungjan, Vladimir Aleksandrovich 2007. Nekotorye problemy opisanija russkoj metriki (o tak nazyvaemykh neklassicheskikh razmerakh). Self-published manuscript. https://www.academia.edu/11147908
- Polilova, Vera S.; Pilshchikov, Igor A.; Belousova, Anastasia S. 2022. Sravnitel'noe stikhovedenie v Rossii i za rubezhom. *Voprosy jazykoznanija* 2, 125–150. https://doi.org/10.31857/0373-658X.2022.2.125-150
- Rudnev, Petr Alejsandrovich 1972. Metricheskij repertuar A. Bloka. In: Mints, Z. G. (ed.), *Blokovskij sbornik*, vol. II: *Trudy Vtoroj nauchnoj konferentsii, posvjashchennoj izucheniju zhizni i tvorchestva A. A. Bloka*. Tartu: The University of Tartu Press, 218–267.
- Rudnev, Petr Alejsandrovich 1989. *Vvedenie v nauku o russkom stikhe*, vol. 1. Tartu: The University of Tartu.
- Rudnev, Vadim Petrovich 1982. Istorija russkoj metriki XIX nachala XX vv. v svete problemy "literatura i kul'turologija". In: Kotnjukh, Tatjana M. (ed.), *Uchebnyj material po teorii literatury: Literaturnyj protsess i razvitie russkoj kul'tury XVIII–XX vv.* Tallinn: Eduard Vilde Tallinn Pedagogical Institute, 91–93.
- Rudnev, Vadim Petrovich 1986. Stikh i kul'tura. In: Chudakova, Marietta O. (ed.), *Tynjanovskij sbornik: Vtorye Tynjanovskie chtenija*. Riga: Zinātne, 227–239.
- Rudney, Vadim Petrovich 1997. Slovar' kul'tury XX veka. Moskva: Agraf.
- Rudy, Stephen 1976. Jakobson's Inquiry into Verse and the Emergence of Structural Poetics. In: Matějka, Ladislav (ed.), *Sound, Sign and Meaning: Quinquagenary of the Prague Linguistic Circle*. (Michigan Slavic Contributions 6.) Ann Arbor: University of Michigan, 477–520.
- Scherr, Barry P. 1986. *Russian Poetry: Meter, Rhythm, and Rhyme*. Berkeley and Los Angeles: University of California Press.
- Scherr, Barry P. 2023. Metrical Ambiguity. In: *Studia Metrica et Poetica* 10(2), 7–31. https://doi.org/10.12697/smp.2023.10.2.01
- Shapir, Maksim Il'ich 1990. Metrum et rhythmus sub specie semioticae. In: *Daugava* 10, 63–87.

Shapir, Maksim Il'ich 1995a. "Versus" vs "prosa": prostranstvo-vremja poeticheskogo teksta. In: *Philologica* 2(3/4), 7–47.

- Shapir, Maksim Il'ich 1995b. "Versus" vs "prosa": Space-Time of the Poetic Text. Trans. by Joe Andrew with Igor Pilshchikov. In: *Philologica* 2(3/4), 48–58.
- Shapir, Maksim Il'ich 1999/2000a. O predelakh dliny stikha v verlibre (D. A. Prigov i drugie). In: *Philologica* 6(14/16), 117–137.
- Shapir, Maksim Il'ich 1999/2000b. On the Maximum Length of a Line in Vers Libre (D. A. Prigov and Others). Trans. by Joe Andrew with Igor Pilshchikov. In: *Philologica* 6(14/16), 138–142.
- Shapir, Maksim Il'ich 2000. *Universum versus: jazyk stikh smysl v russkoj poezii XVIII–XX vekov*, vol. 1. (Philologica russica et speculativa I). Moskva: Jazyki russkoj kul'tury.
- Shapir, Maksim Il'ich 2015. *Universum versus: jazyk stikh smysl v russkoj poezii XVIII–XX vekov*, vol. 2. (Philologica russica et speculativa VII). Moskva: Jazyki slavjanskoj kul'tury.
- Shengeli, Georgij Arkadievich 1940. *Tekhnika stikha: Prakticheskoe stikhovedenie*. Moskva: Sovetskij pisatel'.
- Skulacheva, Tatiana Vladimirovna 2012. Metody opredelenija metra v neklassicheskom stikhe. In: *Izvestija Rossijskoj Akademii nauk. Serija literatury i jazyka* 71(2), 45–54.
- Taranovsky, Kiril [Kirill Fedorovich] 1953. *Ruski dvodelni ritmovi I–II*. Beograd: Naučna knjiga.
- Taranovsky, Kiril [Kirill Fedorovich] 1971. O ritmicheskoj strukture russkikh dvuslozhnykh razmerov. In: Alekseev, M. P. (ed.), *Poetika i stilistika russkoj literatury: Pamjati akademika Viktora Vladimirovicha Vinogradova*. Leningrad: Nauka, 420–429.
- Taranovsky, Kiril [Kirill Fedorovich] 1980 [1971]. The Rhythmical Structure of Russian Binary Metres. In: Smith, Gerald S. (trans. and ed.). *Metre, Rhythm, Stanza, Rhyme*. (Russian Poetics in Translation 7). Colchester, Oxford: Holdan Books, 20–30.
- Taranovsky, Kiril [Kirill Fedorovich] 2020. Russian Binary Meters. Part One: [Theoretical Bases for the Study of Russian Binary Meters]. Trans. by Walter N. Vickery and Lawrence E. Feinberg. In: *Studia Metrica et Poetica* 7(2), 118–176. https://doi.org/10.12697/smp.2020.7.2.07
- Taranovsky, Kiril [Kirill Fedorovich]; Prokhorov, Aleksandr Vladimirovich 1982. K kharakteristike russkogo chetyrekhstopnogo jamba XVIII veka: Lomonosov, Trediakovskij, Sumarokov. In: *Russian Literature* 12(2), 145–194. https://doi.org/10.1016/S0304-3479(82)80007-0

- Tomashevsky, Boris Viktorovich 1923. *Russkoe stikhoslozhenie: Metrika*. (Voprosy poetiki II). Peterburg/Petrograd: Academia.
- Tomashevsky, Boris Viktorovich 1928. Stikh i ritm: Metodologicheskie zametki. In: *Poetika* IV. Leningrad: Academia, 5–25.
- Tomashevsky, Boris Viktorovich 1929. O stikhe. Leningrad: Priboj.
- Tomashevsky, Boris Viktorovich 1959. Stikh i jazyk. In: Tomashevsky, Boris Viktorovich, *Stikh i jazyk*. Moskva, Leningrad: GIKhL, 9–68.
- Tynianov, Yuri Nikolaevich 1924. *Problema stikhotvornogo jazyka*. (Voprosy poetiki V). Leningrad: Academia.
- Tynianov, Yuri Nikolaevich 1977 [1922]. O kompozitsii "Evgenija Onegina". In: Tynianov, Yuri Nikolaevich, *Poetika. Istorija literatury. Kino*. Ed. by Evgenij A. Toddes, Aleksandr P. Chudakov, Marietta O. Chudakova. Moskva: Nauka, pp. 52–77.
- Tynianov, Yuri Nikolaevich 1981 [1924]. *The Problem of Verse Language*. Trans. and ed. by Michael Sosa and Brent Harvey. Ann Arbor: Ardis.
- Zhinkin, Nikolai Ivanovich 1961. Znaki i sistema jazyka. In: Zeichen und System der Sprache: Veröffentlichung des 1. Internationalen Symposions "Zeichen und System der Sprache" vom 28.9. bis 2.10.1959 in Erfurt, vol. I. (Schriften zur Phonetik, Sprachwissenschaft und Kommunikationsforschung 3). Berlin: Akademie-Verlag, 159–174.
- Zhirmunsky, Viktor Maksimovich 1921. *Kompozitsija liricheskikh stikhotvorenij*. (Sborniki po teorii poeticheskogo jazyka  ${\rm IV}_4$ ). Peterburg: Opojaz.
- Zhirmunsky, Viktor Maksimovich 1925. *Vvedenie v metriku: Teorija stikha*. (Voprosy poetiki VI). Leningrad: Academia.
- Zhirmunsky, Viktor Maksimovich 1964. Stikhoslozhenie Majakovskogo. In: *Russkaja literatura* 4, 3–26.
- Zhirmunsky, Viktor Maksimovich 1966 [1925]. *Introduction to Metrics: The Theory of Verse*. Trans. from the Russian by C. F. Brown. Ed. with an introduction by Edward Stankiewicz and Walter N. Vickery. London, The Hague, Paris: Mouton.