Religion and ideological confrontations in early Soviet mathematics: The case of P.A. Nekrasov



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#### Abstract

The influence of religious beliefs to several leading mathematicians in early Soviet years, especially among members of the Moscow Mathematical Society, had drawn the attention of militant Soviet Marxists, as well as Soviet authorities. The issue has also drawn significant attention from scholars in the post-Soviet period. According to the currently prevailing interpretation, reported purges against Moscow mathematicians due to their religious inclination are the focal point of the relevant history. However, I maintain that historical data arguably offer reasons to cast reasonable doubts on this interpretation. In this paper, by reviewing the relevant literature, I raise some methodological and philosophical concerns, in an attempt to contribute to a better understanding of the issue. I maintain that an efficient line of reasoning is to discuss issues in the context of their making, taking into consideration the specific features of each era's culture. Thus, by focusing on P.A. Nekrasov's case, I attempt to point to an alternative interpretation, in which the different treatment of religious inclined mathematicians by Soviet authorities is explained in the context of the ideological confrontation between two contrasting worldviews, as part of the ongoing class war in the several phases of Soviet history.

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### Introduction

In the introduction of his interesting book *Science in Russian Culture, 1861-1917*, A. Vucinich nicely captures the context within which I discuss of the issue that mainly concerns me in this paper, although referring to a somewhat different issue and era:

"The philosophical propositions that make up a scientific paradigm are sociologically important [...] because they define the internal orientation and goals of the scientific community [...]. The intellectual unity provided by a definite paradigm, allows scientists as a social group to offer a strong common defense against all kinds of external attacks. And the change of a scientific paradigm is often accompanied by changes in the ideological preferences, educational philosophies, class origins, and ethnic composition of scientific community". (Vucinich 1970, xiii)

Although it may arguably be inefficient to discuss the case of the "Moscow School of mathematics" in terms of a scientific paradigm, it is tempting to think that, in locally, temporarily and culturally specified terms, it consisted a scientific community in which interactions were developing along line with the Kuhnian doctrine. The case of Moscow School nicely exemplifies how the philosophical propositions define the internal orientation and goals of a given scientific community, which not only failed to adapt to the post-revolution changes in ideological preferences, class priorities etc., but also actively resisted to it.

The influence of religious beliefs to several leading mathematicians in early Soviet years, especially among members of the Moscow Mathematical Society, had drawn the attention of militant Soviet Marxists, as well as Soviet authorities. The issue has also drawn significant attention from scholars in the post-Soviet period. According to the currently prevailing interpretation, reported purges against Moscow mathematicians due to their religious inclination are the focal point of the relevant history.

However, I maintain that the employment of this historiographical line leads to an oversimplifying account on complex social phenomena. Moreover, it could be argued that this line of reasoning is informed by a certain preconception and stance regarding the social transformations taking place in Soviet Union and their particular phase after mid-1920s, when Five-Year Plans were introduced. By reviewing the relevant literature, I raise some methodological and philosophical concerns, in an attempt to contribute to a better understanding of the issue.

The attempted contribution is grounded on a methodological differentiation from other scholar works on this issue. Since there is arguably no value-free historical narrative, I maintain that an efficient line of reasoning is to discuss issues in the context of their making,

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taking into consideration the specific features of each era's culture. Thus, I discuss the issues that concern me within their cultural context, in order to embolden and abet critical assessments, which would not be misled by a prejudged stance regarding this context. As Vucinich argues, a cultural historian can easily link the preoccupation of many Russian mathematicians with probability theory and approximative calculation to the dismal lack of concrete statistical data on the human and natural resources of the country, particularly before the 1860's (Vucinich 1970, xiv). In the same line of reasoning, Soviet interest in these fields of mathematics is easily explicable, since their importance is obvious for a planned economy. Cultural studies of science indicate that the cultural context influences not only the way science develops, but also its content. This applies in the case of early Soviet mathematics too. Soviets were not only interested in developing statistics, but they also needed statistics to serve a certain purpose. The same holds for other fields of mathematics, as well as for science in general. Therefore, actions of the several agents (mathematicians, authorities etc.) who are engaged in the development of mathematics in Soviet Union should be interpreted within this context.

In this paper, I focus on the case of P.A. Nekrasov, a significant figure in the history of the Moscow school of mathematics, who extrapolated his religious views onto science (Sheynin 1993, 342). Nekrasov served as president of the Moscow Mathematical Society from 1903 to 1905 and he was personally, professionally and –most important– intellectually connected with almost every other leading figure of the "Moscow School" before or after him, from the verge of 20<sup>th</sup> century up to 1930s. Therefore, dealing with and contextualizing historical data on Nekrasov and his work may contribute to an alternative than the prevailing in recent literature approach, by focusing on the ideological confrontation between two contrasting worldviews.

I deploy my argumentation in the three parts of this paper. The first part consists of the three first sections of the paper and serves as the basis for the discussion on whether Soviet Marxists' confrontation with religious mysticism in mathematics was consonant with the adopted religious policies. The first two sections give a sketch of state-Church relation in Russia from the prerevolutionary era up to early Soviet years (section 2) and to concisely present the religious policies adopted by Soviet authorities, as well as Soviet Marxists' ideological confrontation with religious beliefs (section 3). The discussion on religious influence on early Soviet mathematics is outlined in the second part of the paper. A rough sketch on the influence of religious mysticism in early Soviet mathematics (section 4) sets up the context of the discussion that follows in the next sections. Then, I discuss the aforementioned confrontation and some of its instances, such as the case of D.F. Egorov (section 5). The final part of the paper focuses on P.A. Nekrasov. Specifically, I contextualize Nekrasov's case in the context of the relevant discussion (section 6), and then focus on several aspects of his work, discussing how they are linked to his worldview (sections 8 and 9). Finally, I attempt to draw some conclusions from the preceding discussion (section 9).

# A sketch of state-Church relation in Russia from the prerevolutionary era up to early So-viet years

After October Revolution, a new era for the history of the Russian Church began. In this section, I attempt to contextualize Soviet religious policies within the ongoing then efforts to build the first socialist state in history.

Before that, a rapid glimpse in the previous situation is useful, since the roots of the influence of religious mysticism in mathematics in Russia are to be found well before the Soviet era. The dominant pattern of Church-state relations from Peter the Great (1672-1725) to the eve of the Revolution was what has been called a "theocratic caesaropapism" (Fletcher 1977, 205-206). The tsar was the head of the Russian Orthodox Church, and the Church for the most part adopted a stance of utter subservience. Functioning virtually as a department of the government, it was used to promote the goals and policies of the state. Church officials supported the tsar as a divinely appointed ruler. The Church, as they put it, "binds people in reverence and obedience to its worldly rulers" (quoted in Lane 1978, 26).

As Janz<sup>1</sup> (1998, 32) notes, this situation had become an anachronism by the 20<sup>th</sup> century. This anachronism, as Janz's analyzes, is depicted in that the intelligentsia largely alienated from the Church. Moreover, other Christian dogmas (Roman Catholicism, Protestantism, Baptism etc.) were attracting growing numbers of believers and followers among those who were abandoning Orthodoxy.

The social impact of this situation was severe. In order to trace it in academia, one should notice that membership in the Orthodox Church was actually a prerequisite for anyone to attend a good school or to hold a government job (Janz 1998, 33). This fact obviously determined how universities were staffed. At the same time, the tsar spent almost as much on the Church as he did on public education (Parsons 1987, 9-10).

When the tsar was dethroned in March 1917 the Orthodox Church's official status suffered a fierce blow and a few months later, in July, a new law by Kerenski's provisional government drastically undermined its monopoly. People were allowed to profess any religion or no religion, to change religions, and to choose whether to receive religious education in public schools (Powell 1975, 24).

After October Revolution, a new chapter in Church's history was meant to be written. Many may be surprised by the fact that by December 1917 the patriarchate was restored for the first time since 1721; since there was no tsar to act as one, Tikhon became the new patriarch.

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Throughout this section, Janz 1998 has been my main reference.

The new relationship between the state and the Church was built on a totally different economic base. The most important change was that Church's property was confiscated and came under Soviet government's control. In the new context, Church's power and influence was drastically cut, yet not eliminated. Among other measures taken by the Soviet authorities, state subsidies for clergy were halted.

In January 1918, the "Decree of the Soviet Commissars Concerning Separation of Church and State, and of School and Church" regulated Church's status in the new era. It declared the absolute separation of Church and state, the freedom of conscience, the right to profess any (or none) religious belief and perform religious rites. It also declared that no Church could and would receive state subsidies, nor would or could perform juridical rights. Church property became state property and, in turn, the state provided to the Church the right to use it free of charge.

It is no surprise, then, that the Church opposed Soviet government from its very first moments. In a message dated February 1, 1918, Patriarch Tikhon anathematized the Bolsheviks. He called them "monsters of the human race", blaming them for persecutions against the Church reacting to the confiscation of its property. Tikhon called for resistance: no child of the Church should fail to oppose these enemies of Christ, as he said (Szczesniak 1959, 36-37). When the civil war broke in May 1918 the Church clearly supported the anticommunist "Whites" and their Western allies who invaded Russia. Unfortunately for the Church, the war was victorious for the revolutioners and Soviet power was stabilized; its stance during the war was a huge demerit for the Church.

The clash between the Soviet authorities and the Orthodox Church became harsher during the famine that struck Soviet Russia in 1921-1922. When Tikhon refused to donate Church's treasures and wealth in order to contribute to the efforts of the government to deal with the problem, the Soviet state confiscated them. The Church's resistance against the efforts of the Soviet state was met with public anger and enforced further restrictions against the Church.

### The ideological confrontation with religious beliefs in early Soviet years

It is well-known that atheism is a vital component of Marxist philosophy. Atheist propaganda was a primary duty for those charged with the organization of the ideological front. Indeed, several articles in newspapers and journals, public lectures and other activities were meant to promote atheism among a population among which religion was deeply rooted. However, it seems that in 1920s there were several different opinions among party's and state's leaders on what should be done about religion and various positions were proposed. On the one hand, there were those who called for continuous and persistent antireligious work, without any tolerance to drawbacks. On the other hand, the so-called "mechanists", whose philosophical background was targeted by Lenin in his work *Materialism and Empiriocriticism*, argued that

antireligious propaganda was pointless since people would gradually reject religion in society's progressive development to communism. According to them, religion should be tolerated until changed social-material conditions alone bring about its demise (Pospielovsky 1987, 110). A. Lunacharsky argued that "religion is like a nail; the harder you hit it, the deeper it goes into the wood" (quoted in Powell 1975, 158). Others, such as Bonch-Bruevich, argued that not all religious movements are reactionary and Marxist should cooperate with the progressive, non-ideological ones (Pospielovsky 1987, 72-73, 109).

Lenin dismissed these views. He acknowledged that demanding ideological work should be done but he understood that atheism could not be imposed by force. Efforts to disclose the irrationality of religious beliefs should be enforced, but patience and good plan was needed.

By 1925, E. Yaroslavsky and the League of Atheists (which later became League of Millitant Atheists) were commissioned with the task to promote scientific enlightenment of the masses in order to whither the influence of religious beliefs. The motto of the group was "The struggle against religion is the struggle for socialism" (Powell 1975, 141).

By 1928, Soviet government decided that it was about time to abandon the conscious, planned and temporary recoils of the NEP (New Economic Policy) period, considering that Soviet society was able to rapidly change its face, by including every sector in the planned economy. This decision, based on the success of NEP with regard to its goals, marked the decisiveness of Soviet authorities to develop the first truly socialist economy and state in history and led to the success of the Five-Year Plans until WW2. Centralization, industrialization, urbanization, collectivization of agriculture, migration eastward and greater access to education were key elements of the years up to the threshold of WW2 (Janz 1998, 37).

The significance and the consequences of the decision to introduce the first Five-Year Plan for the development of socialism in Soviet Union were obvious and the issue was hotly debated in Soviet society. The attempt to further expand and develop socialist relations in production posed new duties in the ideological front for the communists, in times when the class struggle was severe. It was inevitable that State's relations with the Church would be affected.

In 1929, the Soviet government introduced a new law regarding religious issues, the so-called Law on Religious Associations. According to its provisions, religious bodies could not own property or get engaged in contracts of any kind, since they were deprived of their legal status as juridical persons. Religious worship was allowed, however religious propaganda became illegal, as well as charitable work and religious education. There were also numerous provisions making possible the forced closure of churches (Struve 1967, 379-90).

Since the issue of "religious persecutions" in those years is of great interest for my purposes, the findings of Sir Esmond Ovey, the former British ambassador to the Soviet Union who conducted a special investigation on the issue in 1930 are noteworthy. While Ovey was

indicating in his report that "it cannot of course be denied that strong moral and economic pressure is brought to bear [...] on people who continue openly to profess their faith [...] but [...] it is primarily by propaganda that the Soviet government hope to achieve their object", he underscored that there had been "no cases whatsoever of shooting or persecuting priests on account of their religious beliefs" and that "[i] tis probably true that priests like many other persons have been arrested, exiled and even killed in the course of police clashes in connection particularly perhaps with the present agrarian struggle but I have no proof of any such action being taken on purely religious grounds".<sup>2</sup>

The leadership of the Communist Party remained very careful on how to handle the religious sensibilities of masses, being cautious against crude persecutions. Stalin himself spoke of the "great confusion" in the Party's antireligious efforts and charged that "extraordinarily stupid acts are sometimes committed which play into the hands of our enemies", while the Central Committee of the Communist Party added that "those guilty of mocking the religious feelings of peasant men and women" must be brought "to the strictest accountability" and called for an end to the forcible closing of churches as long as this was not what the majority of peasants wanted (Powell 1975, 31).

#### **Religion and early Soviet mathematics**

By the end of the 18<sup>th</sup> century, the Russian intelligentsia had made the connection between scientific inquiry and political modernization, with the predictable response from the tsarist government and the Orthodox Church (Vucinich 1970, xv). In the second half of the 19<sup>th</sup> century in Russia, next to the rise of revolutionary ideology and the rejection of religion, there was also a countervailing movement which become known as the Russian religious philosophical renaissance<sup>3</sup> and saw some leading intellectuals turn, or return, to the Russian Orthodox Church.

Among those involved in this movement, one of the most important figures was Pavel Florensky, who was seeking for "a solid mathematical foundation for constructing a world view for a philosophical and theological understanding of the world" (Demidov and Ford 2005, 598). However, Florensky was not the only religiously inclined mathematician in early Soviet years. The influence of religion to several leading mathematicians, especially among members of the Moscow Mathematical Society (founded in 1864), was significant. For example, Graham and Kantor (2009) offer an illustrious account claiming that the famous Moscow

<sup>2</sup> The archival indexes of these reports in Foreign Office's archive are TNA F0 371/14840 N 631/23/38 and TNA F0 371/14840 N 630/23/38 respectively.

<sup>3</sup> For a detailed discussion on the Russian religious renaissance in the 20<sup>th</sup> century see Zernov 1963.

School of mathematics was inspired by the heretical movement of "Name-Worshiping" (or "Onomatodoxy"), a specific form of Orthodox Christian mysticism, based on the idea that the Name of God is a symbol of God, to be worshiped as God Himself.

In 1929 Kolman<sup>4</sup> criticizes S.A. Bogomolov's (1928) *Evolutsiia Geometricheskoi Misli (The Evolution of Geometrical Thought*) arguing that:

"[m]ysticism, popistry, the laws of the world beyond are the logical culmination of the author's entire ideological concept: geometry is the product of the pure mind, that gift of divine origin. It is the ante-chamber to true philosophy-mysticism. To prove this is the real intention of the author". (Kolman 1929)

Marxist philosophers and mathematicians traced in Bogomolov's work the influence of the religiously inclined mathematician Pavel Alekseevich Nekrasov (1853-1924). According to Soviet scholars, Nekrasov not merely influenced Bogomolov, but also provided ideological underpinning to a group of mathematicians whose work, teaching and actions was deviant from Soviet state's goals and causes. Therefore, this ideological underpinning was heavily criticized. I will focus on the case of P.A. Nekrasov in following sections of this paper.

In the post-Soviet period, the Soviet campaign against certain attitudes and figures of the Moscow Mathematical Society has drawn significant scholar attention. However, despite their merits, several contributions are influenced by a preoccupied perspective regarding Soviet history. In the alternative to the prevailing interpretation approach I attempt to proffer, religious and political ideas flourishing within the Moscow School are treated as part of the cultural context within which the ideological confrontation of militant Marxists and Soviet authorities with them was occurring.

Although religious mysticism was closely linked with politics, the omission of politics reflects a general trend in the representation of the Moscow Mathematical Society and the historical data is almost never considered from this point of view, as if politics became relevant to the affairs of the Mathematical Society only in Soviet years, while scientists were otherwise worlds away from political issues (Svetlikova 2013, 7). As Svetlikova further underscores, it is important to emphasize that the political ideas of the Moscow philosophic-mathematical school should be regarded as part of contemporaneous political life and not be discarded "as mere curiosa reflecting nothing but the troubled mind of some eccentric intellectuals" (Svetlikova 2013, 51). For example, one should not defy that, next to religious mysticism, Moscow mathematicians were also accused of subscribing to

<sup>4</sup> Kolman (1892-1979) was a leading Marxist mathematician, philosopher and historian of mathematics during the first decades of Soviet Union.

the ideology of the Black Hundreds group.<sup>5</sup> According to Svetlikova, the mysticism of the early Moscow mathematicians went hand-in-hand with a commitment to the monarchist and extreme-right ideology of the Black Hundreds group.<sup>6</sup>

One should also take into consideration that, as Joravsky notes, the Communist Academy's<sup>7</sup> efforts to draw natural scientists to Marxism had considerably less success among physicists, chemists, and mathematicians, than among biological scientists. To support this remark, he mentions that the Circle or Society of Materialist Physicists and Mathematicians was formed only at the very end of 1927, four years after comparable organizations for physicians and biologists had been founded. According to Joravsky, why this should have been the case is a puzzle, but the fact itself, of considerable importance to the present subject, is readily established (Joravsky 2009, 158). It is plausible to think that the situation in Moscow School gives at least a partial answer to this puzzle regarding mathematics, although the issue remains open to further research.

A similar view is portrayed by the highly-esteemed mathematician S.A. Yanovskaya, who, in her article "The Immediate Tasks of the Mathematicians-Marxists", which appeared in *Under the Banner of Marxism* (1930), writes:

"If there is a low percentage of natural scientists sharing Marxist views, then among mathematicians this percentage is even lower [...] the Old Professorship from the so called 'Moscow school', whose authority among the mathematical milieu was unshakable, made every effort to save mathematics from the malicious influence of materialistic philosophy, which did not hide its Party orientation and its class, proletarian character. Even the word 'Comrade' was neither accepted at the Institute of mathematics and mechanics, nor at the Mathematical Society [...] in contrast, among the members of this Society, the percentage of white émigrés is rather high". (quoted in Bazhanov 2001)

<sup>5</sup> Svetlikova (2013, 7) mentions Demidov and Levshin 1999 as a source supporting this claim.

<sup>6</sup> Svetlikova also argues that they were also committed to anti-Semitism. It is worth noting that, in a letter to Florensky (dated by November 26, 1916), P.A. Nekrasov declared that the comparison of "Christian science" and the Moscow philosophical-mathematical school (Bugaev, Florensky and himself) with Karl Marx, Markov and another hardly known author "clearly shows the crossroads to which the German-Jewish culture and literature are pushing us" (Sheynin 1993, 140).

<sup>7</sup> The Communist Academy (former Socialist Academy) was founded in Moscow on June 1918, as the Marxist counterweight to the pre-existing Academy of Sciences. At 1936, the Communist Academy was subsumed within the Soviet Academy of Sciences.

#### The ideological confrontation with the "Moscow mathematical and philosophical school"

Albeit mysticism, in the literal sense of the term, might arguably not be attributable to members of the Moscow School, employing it as Svetlikova does, may fruitfully inform the line of reasoning I attempt to deploy. Actually, the way in which H. Bergson addresses the mystical visions for social solutions may serve for a vivid description –by analogy, of course– of the context of the confrontation between religiously inclined members of the Moscow mathematical and philosophical school and Soviet authorities, from the standpoint of the former. It is interesting to note that one of the most important proponents of Bergson's philosophy in Russia was Nikolai O. Lossky, who was connected with P. Florensky, as Tremblay (2017) explains. Thus, the link between Bergson and the main characters of the issue I mainly deal with in this paper may not be as arbitrary as it may look in the first instance.

As Bergson writes in his last work, *The Two Sources of Morality and Religion*, originally written in 1932:

"If mysticism is to transform humanity, it can only do so by passing on, from one man to another, slowly, a part of itself. The mystics are well aware of this. How then, in these conditions, could humanity turn heavenwards an attention which is essentially concentrated on earth? If possible at all, it can only be by using simultaneously two very different methods. The first would consist presumably in intensifying the intellectual work to such an extent, in carrying intelligence so far beyond what nature intended, that the simple tool would give place to a vast system of machinery such as might set human activity at liberty, this liberation being, moreover, stabilized by a political and social organization which could ensure the application of the mechanism to its true object. A dangerous method, for mechanization, as it developed, might turn against mysticism: nay more, it is by an apparent reaction against the latter mechanization that it would reach its highest pitch of development [...] This [development] consisted, not in contemplating a general and immediate spreading of the mystic impetus, which was obviously impossible, but in imparting it, already weakened though it was, to a tiny handful of privileged souls which together would form a spiritual society; societies of this kind might multiply; each one, through such of its members as might be exceptionally gifted, would give birth to one or several others; thus the impetus would be preserved and continued until such a time as profound change on the material conditions impost on humanity by nature would permit, in spiritual matters of a radical transformation. Such is the method used by the great mystics". (Bergson 1932, 235-236)

It is tempting to paraphrase this view and adjust it to the issue that mainly concerns me in this paper, even if it means that I misinterpret Bergson's initial motive and his line of reasoning, since I maintain that such an adjustment could inform the discussion of the issues I deal with in this paper.

Mechanization, being the main target of Soviets efforts to reorganize economy and enforce industrialization, indeed turned against mysticism. Soviet regime, according to its pioneers, was meant to liberate once and for all people from capitalist slavery. A stabilized political and social organization should ensure this route. The weakened mystic circles, confined by the establishment of the new regime, needed to find the way to preserve the mystic impetus under the new conditions. Thus, these privileged souls, the exceptionally gifted members of this spiritual society, should intensify their intellectual work in order societies of this kind to multiply. They should resist and confront, until the time for such a profound change in the material conditions of the society comes, that spiritual matters could lead its radical transformation.

Of course, it is me and not Bergson who is to be blamed for the coarse instrumentalization of this adjustment, in a context radically different from the original one, in which Bergson originally deployed his thoughts. Nonetheless, I maintain that this arguably splay modification of Bergson's view could be fruitful in an attempt to understand how those religiously inclined mathematicians who did not wish to conform to the Soviet regime might understand their situation. Such a narrative may, for example, explain the difference between Egorov's and Nekrasov's cases, as I will discuss them in the rest of this paper.

Indeed, Soviet marxists were harshly criticizing the reflections of religious beliefs on the work of the religiously inclined scientists. However, one should not defy that confronting these reflections was one of the several ideological fronts of militant Marxists against what they understood as remnants of the past that should be overcome by Soviet science in the course of socialist transformation of the society. It is well known, for example, that the need for developing a Marxist understanding of modern mathematics was constantly declared in early Soviet years and several attempts were made in this direction. Therefore, confronting religious influence was regarded as one of the crucial components of this ideological struggle.

An exemplary Soviet critique of views as the ones that were flourishing among mathematicians of the Moscow School is exposed in the introductory section of Mikhail Kh. Orlov's (1900-1936) *Matematyka i Religiia (Mathematics and Religion*) in which the significant Soviet mathematician outlines his motives:

"Religion is now an inseparable part of the bourgeois apparatus for the repression of the masses [...] Amongst other sciences, mathematics is also used by 'representatives of the enlightened bourgeoisie' to strengthen their ideological positions [...] This is why the exposure of such arch-reactionary attempts is of great importance in the general battle of the proletariat against capitalism". (Orlov 1933, §1)

The harsh confrontation between certain circles of mathematicians within academia with Soviet authorities is also exemplified by an incident that took place at the All-Union Congress of Mathematicians that was held at Kharkiv, 24-29 June 1930. At the beginning of the Conference, two renowned mathematicians participating in it disagreed with the greeting message to the concurrent 16<sup>th</sup> Congress of the Communist Party (Demidov and Esakov 1999, 17). They were S.N. Bernstein and the D.F. Egorov, who was head of the Moscow Mathematical Society. This was a typical "anti-Soviet" stance, added to previous allegations, suspicions and accusations against Egorov, which in the relevant literature are usually considered as parts of an orchestrated attack against him.

Egorov, a man of deep faith and strong opposition to the Soviet regime not only refused to hide his political and religious beliefs, but actively spoke out about them (Demidov et al. 2016, 134). Amidst the "war" which was declared on him in the mid-1920s, Egorov continued to resist "[a]lthough it was hopeless"; as president of the Moscow Mathematical Society, he continued to make it "a refuge where the old spirit reigned" (Ford 1991, 29). At 1930, Egorov told at a meeting of the Society that "nothing else but the binding of a uniform *Weltanschauung* on scientists is genuine wrecking" (quoted in Joravsky 2009, 243). This statement was a succinct and clear response to the call of militant Marxists and Soviet authorities to students, scientists and the academic community, as well as Soviet people in general, to confront wrecking activities against Soviet state by reactionary forces, in a period of intensified class struggle, as it was considered by the Soviet authorities.

According to the prevailing interpretation of the relevant history, Egorov's arrest in September 1930 on the case of the All-Union counter-revolutionary monarchist organization "True Orthodox Church",<sup>8</sup> "took place in the context of an unprecedented upheaval in the Soviet Union, launched by Stalin in 1928" (Ford 1991, 24) and it is typically attributed to the fact that, in a period of intensified purges against the Church, he "publicly defended his leadership in the Church and tried to shelter academics who had been dismissed from their positions. He resisted the imposition of Soviet controls on academia and the admitting of large numbers of students chosen for their political rather than mathematical ability" (Ford 1991, 28).

The juridical aspect of the issue is beyond my concerns in this paper. For my current purposes, it suffices to highlight that, as Ford notes, Egorov was actively resisting to the implementation of Soviet policies in academia. This aspect is also underscored in the appeal from the (new) editors to the readers of the double issue (numbers 3-4) of volume 38 of Society's journal *Matematicheskii sbornik*, in which we read:

"During the setting of this number, there occurred a radical reorganization of the Moscow Mathematical Society, the publisher of the journal *Matematicheskii sbornik*. The Mathematical Society persisted until recent times in its caste 'academic' char-

<sup>8</sup> Archival records point to that this case was fabricated by OGPU. According to them, all members of the "organization" were sentenced to various punishments "for certain actions that were against the law". Egorov himself was deported to Kazan, where he died in 1931.

acter. Leading the Society was Professor Egorov, a reactionary and churchman, who fought against the policies of the Soviet government in the fields of higher education and science, under the flag of protecting 'academic traditions' and 'pure apolitical science''. (quoted in Demidov et al. 2016, 135-6)

On these grounds, it could be argued that Egorov was actually persecuted for certain actions which were against the law and not for his religious and political beliefs *per se*. Of course, by no means such an explanation rejects that these beliefs may have informed or could explain motives underlying these actions. For the sake of my argumentation, I merely point to the distinction between motives and actions. I further maintain that this argumentation gets further support by the content of the *Declaration* of the group who led the reorganization of Moscow Mathematical Society after Egorov's arrest, which is discussed in following paragraphs. I should also further note that I appeal to the *Declaration* since I am mostly concerned on the ideological aspect of the confrontation and a "declaration" is a kind of a document that excellently suits to my purposes.

It could be argued that, even though the Bolsheviks declared the freedom of conscience and religion, one could easily be victimized due to his/hers religious beliefs, since it was forbidden to propagate his/hers religious faith; thus, persecution for faith could easily be disguised due to this forbiddance and given the character of the fight against counter-revolution. However, even if it was true, this actually means that, strictly and literally speaking, such cases were not persecutions for faith but for activities which could be regarded as counter-revolutionary and be associated to various kinds of wrecking.

It should also be noted that other faithful Moscow mathematicians (as, for example, L.K. Lakhtin, who became rector of the Imperial University of Moscow) behaved as loyal to Soviet authorities and actively participated in Soviet people's effort to construct the new, socialist society. Therefore, the allegation that every faithful mathematician was expelled from academic life in early Soviet years gets no factual support. It is proven that several among faithful mathematicians were actually integrated in the new environment, without them being forced to repudiate their religious beliefs. This is the reason I challenge the prevailing interpretation, since it could not explain why Soviet authorities treated in different ways mathematician sharing the same religious beliefs. Obviously, it is not necessary that every-one holding religious beliefs should inevitably contrast Soviet authorities and participate in illegal, counter-revolutionary activities, causing their reaction. The fact that other significant mathematicians were not persecuted, despite the fact that they also held strong religious beliefs, points to that it needs to be explained why Soviet authorities were targeting Egorov and not them. In my opinion, this argument could not be reduced to religious beliefs.

Moreover, one should not defy that Egorov had been elected as a corresponding member of the Academy of Sciences in 1924 and an honorary member on 13 February 1929 (Kuznetsov 1971, 127), an incident that even Ford characterizes "noteworthy" (Ford 1991, 29). It is rea-

sonable to think that if Egorov was the victim of an orchestrated and then already ongoing unjustified "war", his candidacy for the Academy of Sciences should not have even been considered. Of course, I do not intend to give Egorov's candidacy a probative value for my thesis; I rather appeal to is as a further indication that could arguably contribute in casting reasonable doubts to the prevailing interpretation.

It could be argued that Egorov's candidacy for the Academy of Sciences did not occur in an atmosphere of total control of academia by the Soviet state, as it is widely accepted that was the case in 1930s. It is needless to say that the significance of the changes in Soviet policies is an undisputed fact and it is true that the discussion on the purported discontinuity of Soviet policies in 1920s and 1930s is a vivid one. However, if one studies this era from the perspective of the Marxist doctrine of social development in socialism, these changes could be seen as stages that should necessarily follow one another and thus account for their dialectical continuity. It should be noted that, since this Marxist doctrine was adopted in Soviet Union, it would be a methodological inconsistency to disregard it in attempts to interpret history from within and in its making, as I attempt in this paper. Furthermore, I should also stress that in the relevant literature, there is also a discussion on purges against non-Marxist intellectuals and academics in Soviet Russia before the end of 1920s. Perhaps the most well-known case is the "Philosopher's ships", which transported intellectuals – among them several Orthodox thinkers- expelled from Soviet Russia in 1922. Chamberlain (2008) and Finkel (2003) are exemplary sources adopting a different than mine perspective, in which this issue is discussed in detail. It should also be noted that among those intellectuals was N.O. Lossky, to whom I have already referred. Moreover, one should also take into consideration that Egorov's candidacy in 1929 took place during the implementation of the first five-year plan, whereas his election as a corresponding member in 1924 took place in the previous period; it seems, then, that in the turn from the NEP years to the following period, at least with regard to his academic status, the situation for Egorov did not change - at least until 1930s. In the relevant literature, this period is considered to be the one in which the repression in the following years was seeding. Therefore, it could reasonably be argued that Egorov's candidacy happened amidst a long period of harsh confrontation between Soviet regime and its ideological opponents, despite the diversity in its intensity and the means employed by Soviet authorities. Recall, for example, Kolman's attack on Bogomolov's (1928), which took place in 1929, as I have previously mentioned.

Given the opportunity, it may be worthy to note that, according to the usual interpretation, Soviet authorities' control over academic life and scientific work was deterring and verting any non-Party (or, at least, not sympathetic to the Communist Party or Marxism or the post-revolutionary state of affairs) scholar and his work. However, this is far beyond being true. For example, it is a fact that the State Press, known as *Gosizdat* or *Giz*, was far from being a Bolshevik monolith. From 1922 to 1930 its "Scientific Section" was headed by the non-Party mathematician, V.F. Kagan, who was then only vaguely sympathetic to Marxism (Joravsky 2009, 70). The reader should have noticed that this is a period of significant interest for my concerns in this paper, including Egorov's case.

After Egorov's arrest, an "Initiative Group for the Reorganization of the Mathematical Society" took over the leadership of the Society for a while, until the election of a new presidium. The opening paragraph of the *Declaration of the Initiative Group for the Reorganization of the Mathematical Society* states that:

"The intensified class war in the USSR has pushed the right wing of the professorate into the camp of counter-revolution. [...] Active counter-revolutionaries have appeared even among mathematicians. Professor Egorov was arrested for participation in a counter-revolutionary organization. He is the acknowledged leader of the Moscow school of mathematics, president of the Mathematical Society, former director of the Mathematical Institute and the candidate of Moscow mathematics in the Academy of Sciences. This same Egorov is the preserver of academic traditions. against which the proletarian student body had already undertaken struggle. Nearly unanimously the Moscow mathematicians came to his defense. There has been a full clarification of the role of academic traditions in our nation, traditions coming from pre-revolutionary Russia, in the promotion of counter-revolutionary and restorationist attitudes among scientists. By the preaching of 'pure science', by the renunciation of the class struggle among scientific workers, by the preservation of caste prejudices among scientists, the counter-revolutionaries have preserved for themselves the leadership positions in scientific organizations". (Lyusternik et al. 1930, as guoted in Ford 1991, 24)

Moreover, in the *Declaration*, Moscow Mathematical Society was accused of excluding communist mathematicians from its ranks, while continuing to list as members mathematicians who had fled the country after the revolution. With regard to religion, the *Declaration* mentions that:

"Connected with the traditions of philosophical idealism, inherited from Bugaev and others, the Society of course would not consider Marxist methodology in science. Instead, 'priestcraft' and clerical obscurantism flourished in its ranks. The entire membership of the Society, beginning with its president, were active church people, using the name of Soviet science to hold up the authority of the church among the masses". (Lyusternik et al. 1930, as quoted in Ford 1991, 25)

# P.A. Nekrasov: Mathematics and the "true autocracy"

Pavel Alexeevich Nekrasov (born on February 1, 1853, died December 20, 1924) was wellknown for his reactionary background, as well as his intention to extrapolate his political and religious ideas to his scientific work. Nekrasov has been accused of being a member of the Black Hundred, an ultra-nationalist, monarchist movement in Russia in the early 20<sup>th</sup> century (Sheynin 1989, 342). As Verbugt notes, Nekrasov's figure contributed much to the post-revolutionary image of the Moscow Mathematics School as a bulwark of anti-Marxist sentiment (Verbugt 2015, 540).

He has served as president of the Moscow Mathematical Society in a period when the situation that followed in Egorov's years was being culminated and he was also intellectually related with other important figures of Moscow School. By appropriating the way of expression of the aforementioned *Declaration*, I maintain that discussing P.A. Nekrasov's case may inform an alternative approach on the way militant marxists and Soviet authorities ideologically confronted the influence of religious mysticism in early Soviet mathematics as part of the ongoing class war.

P.A. Nekrasov was a son of a priest, who studied in the Department of Mathematics and Physics at Moscow University.<sup>9</sup> He became rector of Moscow University (1893-1898), warden of Moscow School District (1898-1905), and a member of the Council of the Ministry of Public Education in St. Petersburg (Sheynin 2003, 38). Nekrasov served as president of the Moscow Mathematical Society from 1903 up to 1905 and committed himself to the task of incorporating free will into the probabilistic explanation of statistical regularities with the explicit aim of defending "true autocracy"<sup>10</sup> in the name of science (Verbugt 2015, 534). In 1905, Nekrasov was appointed to the Ministry of Public Education and had consequently quit both as warden of Moscow School District and as president of the Moscow Mathematical Society and left Moscow for St. Petersburg.

According to Sheynin (2003, 337), the best source for his biography up to 1898 remains an anonymous newspaper article of that year, whose author expressed his hope that Nekrasov would continue to educate young people "in the spirit of duty to God, Czar and Fatherland" (Anonymous 1898).

In the papers he published in *Matematicheskii sbornik* at the beginning of the 20<sup>th</sup> century, Nekrasov tried to substantiate the indispensability of the regime prevailing at that time (Liusternik 1967, 192). In Nekrasov's writings after the turning of the century, mathematics was inseparably linked with ethical, political and religious considerations (Sheynin 2003, 341).

<sup>9</sup> For accounts providing interesting biographical details while focusing mainly, but not exclusively, on the work of P.A. Nekrasov, see Buckingham 1999, Petrova & Solov'ev 1997, Seneta 1984, Seneta 2003, Sheynin 2003. All of them, and especially Sheynin also provide valuable material from Soviet and post-Soviet Russian sources, which I have utilized. To develop my line of reasoning, I have also relied on Svetlikova's 2013, which offers a very detailed discussion of Nekrasov's religious, philosophical and political views. 10 Quoted in Kassow 1989, 211.

Indeed, at December 13, 1916, Nekrasov wrote a letter to Florensky, in which he argued that he had reconciled mathematics with religion and politics "logically, correctly and rightfully" (Chirikov and Sheynin 1994, 205).

# Statistics, probabilities and the clash with Markov

Nekrasov's views on probability theory and the way by which he extrapolated his political and religious views onto science were met by severe criticism by Marxists and others. For example, von Bortkiewicz refuted Nekrasov's idealistic declarations that probability could serve "for softening the cruel relations" between capital and labor (von Bortkiewicz 1903, 2) and argued that Nekrasov was attempting to justify stochastically "the principles of firm power and autocracy" (von Bortkiewicz 1903, 5).

Nekrasov's statistical appropriation of theorems such as Bernoulli's Weak Law of Large Numbers (WLLN) and its linking to the long-standing philosophical and theological disputes on the issue of free will is a typical case of religiously informed mathematical reasoning. According to the Christian doctrine, every person has free will and therefore s/he is responsible for his/ hers actions. Therefore, this issue was of great interest for the Russian mathematicians who were influenced by religious mysticism. In this case, mathematical reasoning meets the issue of free will in attempts to cope with empirically observed but rationally inexplicable phenomena, such a statistical regularity. As Chuprov, an important Russian mathematician wrote in 1909, "[t]he 'Moscow School' decidedly insists that free will is the condition sine qua non of statistical laws governing everyday life"(Chuprov 1909/1959, 223, quoted in Seneta 1966, 257).

Bernoulli's WLLN of 1713 is the first limit theorem of probability theory and, under certain conditions, it could be treated as a mathematical abstraction of statistical regularity. In order WLLN to hold, a certain part of the typical form of the theorem had been implicitly assumed to be independent in the continuing development of the fundamental probability limit theorems for sums.

Nekrasov's work offered an alternative interpretation, by pointing to that independence was not required and "pairwaise independence" (in modern terms, zero covariance) is sufficient (Nekrasov 1902, 29). As Seneta<sup>11</sup> notes, Nekrasov wanted to use the empirical validity of the conclusion to infer that pairwise independence is *necessary* (as well as sufficient) for

<sup>11</sup> Seneta's 2004 is a very detailed source not only with regard to the dispute on the interpretation of Bernoulli's WLLN, but also for several other aspects on the interrelation of mathematics and religion in circles of Soviet academia and much of what I mention in the relevant sections of this essay is based on it.

the WLLN. This conclusion could then be expanded to the empirical long-term stability of averages in everyday life. In this attempt, Nekrasov was motivated by his belief that observed statistical laws for observational data implied "free will" and pairwise independence was consonant with free will (Seneta 2004, 345).

However, A.A. Markov (1856-1922) proved that the necessity claim to which Nekrasov appealed is mathematically unjustifiable. In 1906, Markov proved that the WLLN holds for the so-called "Markov chains", a scheme of dependent variables.

It is worth noting that Markov was an atheist and volatile fighter for scientific purity and for justice (Seneta 2004, 345). The disputes between Nekrasov and Markov, among several others, point to the fact that clashes among mathematicians on ideological grounds, were usual not only in Soviet years, as I have already discussed, but also in pre-Soviet Russia.

The dispute between Nekrasov and Markov was lasting and not only about mathematics. It was primarily a clash of two different worldviews that were reflected on their scientific work. Nekrasov himself acknowledged that his disputes with Markov were far beyond merely scientific. In a newspaper article written in 1916, Nekrasov argues that "the mathematical language [must] [...] embrace supreme ethics, [be] together with conscience (with theology). [...] However, the mathematical language of such pan-physicists as Markov is of another kind, it is Nietzschean, and does not recognize supreme ethics (theology)" (quoted in Chirikov and Sheynin 1994, 189).<sup>12</sup> Verbugt nicely describes their disputes as "a deep ideological conflict between the arch-enemies Nekrasov, the reactionary-cum-mystic devotee of Russian autocracy and the Orthodox Church, and Markov, the Marxist<sup>[13]</sup> who requested to be excommunicated from the Holy Synod, on the religious and political meaning of mathematics" (Verbugt 2015, 539-540).

The scope of the contrasting views of Nekrasov and Markov is also apparent in their attitude towards Bayesianism. In his work (1912), Nekrasov adopts a Bayesian interpretation of probabilities due to the fact that it allows incorporating degrees of belief into analysis of experimental evidence. Nekrasov interprets statistical regularity as evidence of Devine action. It should be noted that the first part of the book is heavily ideological on matters of religious faith, autocracy, and capitalism (Senetta 204, 346). Indeed, Nekrasov's work (1912) presented theory of probability as a powerful economical and, above all, ideological tool capable of defending Russia against the Jews (Svetlikova 2013, 90). In this book, which was financed by the Ministry of Public Education (or, as it is literally translated, Ministry of Public Enlignthment), Nekrasov attempted to make theory of probability conformable to the

<sup>12</sup> Of course, as Sheynin also rightfully notices, perhaps the only thing that Markov has in common with Nietzsche is his negative attitude towards religion (Sheynin 2003, 341).

<sup>13</sup> It should be noted that Markov's affinity to Marxism, to which Verbugt refers, is an issue that remains questionable, according to the relevant literature.

Russian philosophy represented by Slavophils, and to Russian Orthodoxy (Svetlikova 2013, 92), aiming to underscore its ideological significance.

Nekrasov's account was further criticized by Kolman. According to him, Nekrasov's (1912) aims to mathematically justify policies of the tsarist as manifestations of Divine Order. According to Kolman, "although all these fantasies are today seen as deep medievalism, one should not forget that not so long ago statistical theories were used as a means of economic wrecking, and deeply thoughtful works [...] were published [...] by people who had once passed through the full course on the theory of probabilities of this same P.A. Nekrasov" (Kolman 1934, 76).

On the contrary, Markov's work (1908), which was also about probabilistic calculus, argues for a frequentist treatment of probability and is highly critical of Bayesian interpretations due to the same reason that Nekrasov fancies of Bayes' Theorem (Seneta 2004, 345). The fact that the Bayesian interpretation allows the introduction of degrees of belief makes it vulnerable to subjectivism.

It should also be noted that Marxism (or dialectical materialism if one prefers, given that our discussion is mainly about Soviet Marxism) also repudiates subjectivist accounts on probabilities. This point is important, since it is a recurring issue in several controversies in which Marxists are engaged. For example, the same issue was of the central ones in the long-lasting disputes about the interpretation of quantum mechanics. One should also note that the issue of "free will" also enters the scene in this discussion; several authors have argued for a kind of "free will" even in the case of the electrons. What is at stake in this discussion, is the issue of causation or, if one prefers, causality. For, if a subjectivist approach is to be adopted, then it could not be justified how Marxism could account for development on the grounds of dialectical contradictions. In that case, neither revolutionary overthrow of capitalist society when the prerequisites are met is granted, nor the direction of social development to communism.

In this context, it is explicable why Marxist philosophers and scientists, as well as Soviet authorities were very interested in cases of subjectivist interpretations. From the Marxist standpoint, probability is conceived of as measure of objective possibility, expressing the dialectical relation between the random and the deterministic. On these grounds, randomness could be understood as a special kind of causal relation. Therefore, Marxism is able to overcome the shortages of Laplacian determinism and accounts for a dialectic understanding of causality when it comes to the discussion about the relation between cause and effect. Otherwise, Marxism would be vulnerable to criticism for crude determinism.

The disagreement between Markov and Nekrasov goes far beyond Bayes' Theorem though. Nekrasov himself attacks on Markov's account, criticizing his book as Marxist, "deliberately removing all traces of teaching about higher justice, for example the mathematical doctrine of moral expectation" (Nekrasov 1916, 16-19). The reader should have noticed that Nekrasov was publicly expressing his anti-Marxist views and attitudes on the verge of Bolshevik revolution. In the next section, I discuss some aspects of Nekrasov's work and activities in Soviet years.

#### Nekrasov in the Bolshevik era

After October revolution, P.A. Nekrasov remained at his position at Moscow University, where, in 1918-1919, he taught a special course "On the branches of mathematics necessary for the economic sciences" (Komlev 1989, 423). Sheynin mentions that A.A. Konüs, Nekrasov's only listener at this course, told him in a personal communication in 1989 that in this course Nekrasov dealt in particular with the work of Walras (Sheynin 2003, 339).

Walras is considered to be the founder of the mathematical school in economics. According to Walras, the balance between effective supply and effective demand of each product and service is comprised of an "equilibrium of exchange", which tends to restore itself within free competition. Walras assumes a perfect competition and places the entrepreneur, receiving and distributing payments for "productive services" at the center of his scheme. He argues for a "system of applied rational economy", in which the state undertakes the position of the entrepreneur, since in such a case the various services would be placed in a just relationship of value to scarcity. As he explains, in a collectivist state "the worker would achieve a just wage while at the same time there would be a condition of freedom". Walras clarifies that "the system I am proposing would differ from communism" and argues that in his system "the most useful products will be produced, and the wages of labor would be high, because it would have been placed in the just relationship of value to scarcity" (Walras 1898, 237).

It is obvious that Walras' views were far away from Marxism. It is plausible to think, even if it cannot be proved, that studying Walras' work and ideas from a mathematical (and not an economical) perspective a few months after October's revolution in such a context (an academic seminar with limited attendants) may point to a political interest on their application, especially since Nekrasov continuously declared his interested in adjuncting political and philosophical conclusions to his mathematical work. It is also worth noting that Andreev argues that Nekrasov's economic concepts were "equally hostile both to the capitalist and the socialist principles" (Andreev 1999, 105-106). Thus, it could be reasonably inferred that Nekrasov's academic interests even after the revolution were driven by his pre-revolutionary views and attitudes.

At the beginning of the 1920s, Nekrasov was still active in Moscow University. Beskin, who entered Moscow University in 1921, confirms that he, together with some other freshmen, attended Nekrasov's course "Theory of probability" at the last year he delivered lectures (Beskin 1993, 168-169), whereas Liusternik adds that during the first half of the 1920s Nekrasov, being by that time "a queer shadow of the past" and seeming "decrepit – physically and mentally", was still attending the meetings of the Moscow Mathematical Society and

sometimes even presented papers (Liusternik 1967, 222). Therefore, it is concluded that Nekrasov was not expelled from academic life and teaching duties, including courses in his "condemned" theory of probabilities. Therefore, it could be argued that no case for purges against him based on his religious beliefs and inclinations could be sustained. If this is true for such a highly esteemed mathematician, former leader of Moscow Mathematical Society and significant "spiritual" leader for others, then it is plausible to cast reasonable doubts on whether other Moscow mathematicians were purged merely because of their religious beliefs, as it is widely alleged.

It could be argued that, since the situation in Soviet Union radically changed at the end of the 1920s, Nekrasov's case, given that he died in 1924, is not sufficient to support my argumentation; it could be regarded unlikely that he would have been left in peace in the end of the 1920s. However, I have already discussed the issue of continuity and discontinuity of Soviet policies in the 1920s and 1930s in a previous section of this paper. On the grounds of this discussion, I maintain that dealing with Nekrasov's case as one that took place in a long period of harsh confrontation, varying in degrees, between militant Marxists and Soviet authorities, on the one hand, and their ideological opponents, on the other, could fruitfully inform an attempt to deploy a different than the currently prevailing interpretation of the relevant history.

The reader should also recall that I do not intend to contrast the view that militant Marxists and Soviet authorities were actively opposing religion. I simply argue that if one attributes the persecution of certain mathematicians merely to their religious beliefs, then one should also argue on why other members of this group were not persecuted. If this question is not answered convincingly (and I am not aware of any satisfactory answer in the relevant literature), then it is legitimate to explore the possible merits of employing a different historiographical line.

To conclude this section, I would like to shortly discuss an extract from an obituary of Nekrasov published in the newspaper *Izvestia*:

"The revolution had come, and Nekrasov decided to direct his entire talent towards serving the proletariat. He definitely attempted to grasp the Marxist system. He wrote a series of new monographs where he applied mathematical methods to analyzing social phenomena. A number of communists-mathematicians took upon themselves the problem of cleansing his works from their metaphysical shell. [...] A few days before his death, having caught pneumonia and entering hospital, Nekrasov had time to write me his last note asking me to participate in creating a scientific Marxist group for studying and applying his works. He ended his letter by a request: 'I am asking you to take all steps to ensure that the mathematical truths, valuable from the Marxist's viewpoint, having been once discovered, will not be lost after my death, already sneaking up to me'''. (Uritsky 1924, 7)

At a first glance, Uritsky's words may seem to undermine what I have discussed, regarding Nekrasov's persistence in his pre-revolutionary views. On the contrary, I maintain that it highlights the counterfactual inconsistency of the prevailing interpretation adopted by several scholars dealing with the history of early Soviet mathematics: while Nekrasov never abnegated his religious views, such an obituary appeared in a newspaper edited by the Communist Party, the ruling party in Soviet Union, the state authorities of which are recounted to orchestrating attacks on other Soviet mathematicians solely due to their religious beliefs.

A potential grounding of an alternative interpretation could arguably be extracted by considering Uritsky's words that Nekrasov "decided to direct his entire talent towards serving the proletariat". It seems, then, that Nekrasov tried to adapt himself in the new context while retaining his beliefs; at the same time, others did not. This is a factual claim, which could arguably explain why Soviet authorities did not turn against Nekrasov, while others in Nekrasov's circles were accused for wrecking activitites against Soviet state. The fact that such accusations were not addressed against Nekrasov, as well as against other religiously inclined mathematicians, despite that they retained their religious beliefs, points to an alternative to the prevailing explanation: it seems more plausible to appeal to the difference in their attitudes and stances from those of their purged colleagues to account for the difference in the way they were treated by Soviet authorities, than appealing to religious beliefs as the only reason for the persecution of the latter group of mathematicians, since both groups shared similar religious beliefs.

Such an explanation also arguably supports my point that the ideological confrontation between contrasting worldviews as expressed in the cases I discuss in this paper was consonant with the religious policies adopted by Soviet authorities. Religious beliefs were confronted as part of the ideological struggle led by the Communist Party, whereas counterrevolutionary activities were confronted, at the practical level, by Soviet state authorities.

#### In lieu of conclusion

Given the fact that Soviet Marxists criticized leading Moscow mathematicians for their reactionary, counterrevolutionary and obscurantist activity and ideology, the prevailing interpretation on the issue, accounts for their purges merely on religious grounds. However, as I have attempted to show, historical data arguably offer reasons to cast reasonable doubts on this interpretation.

By focusing on P.A. Nekrasov's case, I have attempted to point to an alternative interpretation, in which the different treatment of religious inclined mathematicians by Soviet authorities is explained in the context of the ideological confrontation between two contrasting worldviews, as part of the ongoing class war in the several phases of Soviet history.

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Specifically, I maintain that the historiographical line adopted by several scholars dealing with the history of early Soviet mathematics receives only partially factual support, since there are several cases of religiously inclined Moscow mathematicians who were not purged. Therefore, a separate argument is needed to account for that, if the prevailing interpretation is to be adequately grounded. Since I am not aware of such an argument, in order to critically assess it, I pose the question if the adoption of a different historiographical line may effectively address the challenge posed to the prevailing interpretation by this counterfactual inconsistency. If one is prone to a positive answer to this question, I propose that this alternative approach could arguably be grounded on a different understanding of the interactions in the socio-cultural context of early Soviet years and their influence on academia.

Obviously, this begets a discussion on the issue of continuity and discontinuity between the several stages of Soviet history until 1930s. However, a detailed discussion on this issue is far beyond the scope of this paper. Therefore, I contend that it suffices for my current purposes to point to a certain understanding, based on which the refinement of the historiographical line employed in the relevant studies I propose in this paper, could arguably prove itself sustainable. Further discussion on this issue may trace the actual potential of this line of reasoning. My current purpose is simply to point to this direction.

It could be argued that the alternative approach I attempt to circumscribe is in fact not an alternative, since it amounts to the official explanation adopted by Soviet authorities. However, I should underscore that it is not my intention in this paper neither to justify nor to condemn Soviet policies. It is my strong belief that serious scholar work should avoid begging the question, especially when the question is informed by prejudgment. In this paper, I merely attempt to point to what I think is inconsistent in the prevailing interpretation adopted by non-Soviet scholars. Against this view, my proposal is undoubtedly an alternative, grounded on my methodological choice to attempt to interpret the relevant history from within and in its making, focusing on the cultural context of early Soviet years and cautiously avoiding any implicit bias that could arguably mislead any attempt to trace the nexus of causal lines underlying these phenomena.

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