

Paper Title: The Religious Basis of Contemporary Problems in the Natural Sciences and Humanities

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Abstract:

The vision for this Project is based on an integration of local and global viewpoints. We wish to acknowledge a holistic approach to the science and religion interface. By bringing together Eastern Orthodox theology with important developments in hermeneutical philosophy, science and social communication we hope to deliver a productive approach to the contemporary situation in the Russian context. Educational reform in Russia has reached a critical stage. Incorporating global perspectives on science and religion could open new doors to shared understanding, rather than missing the opportunity to offer mutual benefit and spiritual learning.

Biography:

Dr. Natalia A. Pecherskaya is Rector of one of the first Russian non-state educational institutions in St. Petersburg, the School of Religion and Philosophy (SRPh) founded in 1990 under the aegis of St. Petersburg Association of Scholars and Scientists. She has coordinated projects on philosophical issues in cooperation with German, Italian, and Spanish scholars. She has also served as Administrator of CTNS, LSI/Metanexus projects and organized international conferences on the issues dealing with human beings in science and theology (Templeton), on inter-confessional relations among Christians, Jews and Muslims (ICCJ) and on religious higher education in Russia (IAPCHE).

This paper was prepared through discussion with some members of the SPECRS team: Drs. Alexei Oskolsky, Grigori Benevich, Alexei Chernyakov and Mr. Greg Sandstrom. Editing and help with the English language was given by Greg Sandstrom.

Paper:

Some Basic Ideas behind the Project

Russian philosophy has always maintained the thesis that the human intellect is fundamentally whole and that all the energies of a person’s soul should be united in ascension to an innermost core. However, perhaps precisely because of this circumstance the problem of ‘science vs. religion’ in Russian culture has not had the tension and importance with which we speak of it as one of the major factors determining the history of Western thought. As a result, discussions of this most important dualistic problem go on rather languidly in Russia. The outlines of related issues remain unclear, and the manner of posing questions and strategies for thinking about them are more often than not completely irresponsible, naïve or just uneducated.

In addition, it must be noted that ‘theology’ in Russia has always meant (and still primarily means) almost exclusively ‘the writings of the Church Fathers’, that is, studies of patristics. Yet patrology cannot be limited exclusively to philological research, as it often has been during the past times, though philology is of course an important part of any attempt at interpretation and reinterpretation of interpretation. Today’s habit among theologians of retelling what the Saints and Church Fathers said using the ‘language immanent to tradition’ combined with a certain hostile attitude towards the ‘technical character’ of scholarly thought have caused a wide gap in Russia today between religious life on the one hand and intellectual and cultural life on the other

hand. This gap exists despite all exterior appearances of cooperation and welfare and has rendered today's social world vulnerable to secularism and deprived it of individuality. This situation leads to a painful contradiction between efforts in Russia to re-acquire important components of its lost cultural heritage and at the same time to become an equal member of the world's intellectual and cultural communities. The gap just mentioned influences scientific, theological and philosophical thinking, education, politics and (very often) the 'private' professional careers of scholars and critics, which provokes a kind of 'ethical schizophrenia'. What this means is that many Russian citizens suffer from an inability to reconcile theoretical interests with their religious life.

Discussions on the theme of science and faith/spirituality/religion could help to clarify the nature of this contradiction and the actual extent to which it is rooted in Russian culture. There is no other way to overcome this contradiction, but to cooperate and to reflect openly in a common space, doing joint work and making collaborative efforts. This common space is herein called the *hermeneutical problem in science and theology*, and this is the cause to which the GPSS Project is dedicated to helping create.

Philosophical Foundations and the Hermeneutical Approach

What we wish to address is the hermeneutical problematic as such which is common to both religion and science. The thesis that both religion and science have a hermeneutical problematic as an internal dimension, is far from being generally adopted. Scientists sometimes suggest that the 'text of science' (let us repeat that we are talking about 'natural sciences') differs from all other texts specifically in that it is read in a completely unambiguous way and offers no room for interpretation. Science, according to this understanding, deals with facts rather than interpretative texts and looks for explanations (in terms of other facts) rather than in terms of what science signifies for human life and history. Science is not, and needs not be, hermeneutically involved: science does not interpret – it 'describes' and 'explains' *facts* 'observed' during scientific research. Such an understanding of modern natural sciences penetrates neither to the core of the modern hermeneutical tradition, nor to how deeply hermeneutics is implicated in scientific process¹. As a result a very important and potentially fruitful domain of science-religion dialogue has fallen out of consideration.

According to a tradition that goes back at least as far as J.S. Mill's *System of Logic* (if not as far as Aristotle's *Second Analytics*), a scientific explanation must have the form of a logical deduction starting from the general theses of a theory (i.e. the 'laws of nature') which function as 'explanatory knowledge' (*explanans*) and arrive (as the last link in a logically deductive chain) at the description of a given fact which must be 'explained' (*explanandum*).

This form of deductive-nomological explanation² (the term 'nomological' being built from *nomos*, the Greek word for 'law') inevitably leads to certain limitations in the *language of description*. That is to say, the fact(s) under consideration must be described in terms used for the formulation of general laws because otherwise it is impossible to *explain* the fact(s) according to the proposed procedure, i.e. to infer a corresponding descriptive sentence from a general statement of laws.

Of course, in contemporary science 'laws' are usually formulated in terms which differ from the casually descriptive language that we use in everyday life. These terms are usually a part of the language of this or that particular science and are defined by their position within the system. If

¹ To the hermeneutical problem in natural sciences a number of fundamental works by Patrick A. Heelan are dedicated (see Bibliography).

² Cf. Torretti, R., *Creative Understanding: Philosophical Reflection on Physics* (Chicago-London: University of Chicago Press, 1990).

natural philosophers and scientists had remained limited to the scope of a *natural* language, they would never have been able to bring together within the framework of one scientific theory such seemingly disparate phenomena as apples falling down, heavenly bodies moving in regular orbits and galaxies receding in space-time.

In a lecture delivered at Oxford in 1933, Albert Einstein noted that the concepts and fundamental laws of physics are not derived by abstraction from experience, nor can be justified by appealing to the (a priori) nature of human reason, for they are a “free creation of the human mind”³. And thus they are not a result of a simple passive ‘observation’ followed by a ‘description’: certainly they depend upon the data of observation, yet on the other hand they themselves force the observer to accept a particular prospect for his or her ‘looking at’ what is given. This means that the conceptual system of a theory actively structures the corresponding field of experience. Thus, the scheme of deductive-nomological explanation is now vulnerable: a kind of *hermeneutical circle* comes to the fore – the mutual influence of the *explanandum* and the *explanans*.

It is quite clear that modern scientific searching for the *only* ‘correct’ language to express the ‘literal sense’ of meaning in an absolutely univocal way is nothing less than an attempt to avoid the need for interpretation altogether. Therefore, we suggest that the majority of destructive intellectual products regarding philosophical and theological misunderstanding of science, as well as in scientific misunderstandings of theology and philosophy are consequences of an inability to perceive the limits and competence of implementing resources of the hermeneutical approach.

For example, developments in biological science of the 19th and 20th centuries have provoked many sharp collisions between science and religion. In particular, correspondence regarding testimonies of Holy Scripture with notions of evolution in the organic world, the problem of bringing together phenomena of the human soul and spiritual life with the deeper discovery of neuro-physiological processes, the special position of the human being in the natural system of living creatures, etc. The sharpness of these collisions can be defined by the fact that biological science as well as religion are touching and differently interpreting the basic common intuitions that define the existential way of being human, our representation of ourselves and our earthly calling. The (metaphysical) presumptions to such debates between biology and religion remain in the form of intuitions, and give a certain non-transparency which hinders constructive discussion of the conflicting sides.

The present Project can be considered as a hermeneutical approach towards collisions within different scientific disciplines and religion. The relations between problematic issues in natural sciences and religion will be interpreted in relation to our human attempts to understand things about the world. Ontological and anthropological presuppositions of scientific knowledge in connection with religion will be exposed. By this we hope to clarify the horizons of scientific discovery and to highlight the limits for which a constructive dialogue between natural science and religion can be realistic.

Byzantine Theology and the Orthodox Tradition

The secularization of humankind, this major achievement of modernity, has not silenced the quest for meaning but has produced an urge to find alternative ways of satisfying existential human needs.

In response to this, we think it necessary to develop, in dialogue with the main trends of contemporary thought, a new theological approach that is based on the achievements of

³ Einstein, A., *Mein Weltbild* (Amsterdam: Querido Verlag, 1934).

Byzantine theology (the Cappadocian Fathers, St. Maximus the Confessor, St. Photius, St. Gregory Palamas, St. Mark of Ephesus, et al.). One can find here a difference between God as a Trinity of Persons (who can be known only in the Church), and God, acting *ad extra*. From this perspective, the notion of Person (Hypostasis) can strictly speaking be applied to God only within the frame of the inter-Trinitarian relations, in which the faithful are involved. As for God acting *ad extra*, we cannot speak about Him as about a Person. Here we enter the field of energies and powers. On the other hand, science as a secular phenomenon does not claim that it can know God as the Church does. There is no 'Personal God' for science (the "hypothesis of which" is "not useful for science" according to Pierre Laplace). However, from the point of view of Byzantine theology, such a Personal God should indeed not exist for secular science. This approach to science-religion relations allows us to find reasons for their previous antagonism and modern alienation and allows us to draw new perspectives for overcoming this alienation with the help of the Byzantine (Eastern Orthodox) theological heritage.

Moreover, in modern Orthodox theology (e.g. Basil Lurie, St. Petersburg, Dr. Arkadi Choufrine, Princeton) one can find a tendency to refer to contemporary physical theories as fruitful metaphors for descriptions of the antinomies of Triadology and Christology⁴. A hermeneutical analysis of these hidden analogies can provide a ground for new perspectives in the dialogue between religion and science, and help lead to the abolition of their mutual alienation.

Collaborative Social and Educational Thought

The social sciences hold a key to public communication across a diverse range of fields in the academy. The educational reform currently underway in Russia requires a comprehensive sociological analysis which would compliment studies undertaken in the history and philosophy of science. This would supplement the work done by philosophers, theologians and natural scientists and help to bring the social dimension into account. Without this crucial component, a strictly Ivory Tower approach could be implemented, which would misdirect Russian educational reform towards an over-dependence on scientific and technical training at the cost of philosophical and spiritual learning. The danger is a neglect of the anthropological and civic needs of Russian individuals, to the benefit of ideologues that hold power in setting their own agendas on the national stage.

Science is supplemented by new contributions to knowledge via the reflexive nature of the scientists themselves, which involves also their philosophies about life and their worldview or faith-based perspectives. In the past this feature was not a large or important part of science. Today it is. There comes a time when the objectivity claims of science break down. Subjectivity is recognized and reflected. Here a hermeneutical approach, elaborated by 20th century philosophy, may come together appropriately and effectively with social scientific approaches, which have historically considered the role of human beings interpreting the conditions, circumstances and situations around them. Only such a partnering of resources will adequately meet the challenges presented in the move toward scientific and educational reforms in the Russian Federation for the 21st century.

⁴ See Nesteruk, Alexei V. *Light from the East. Theology, Science, and the Eastern Orthodox Tradition*. (Fortress Press: Minneapolis, 2003).