

# The Nature of the Science and Religion Dialogue in Russia and Its Basic Ground

Alexei Chernyakov and Natalia Pecherskaya

## Abstract

Described in the most general terms, the goals pursued by the activity of the St. Petersburg Education Centre “Religion and Science” (SPECRS) in Russia present the following. We are striving to provide a sphere where scholars, theologians and philosophers could combine their efforts to find a language and a way of posing problems which would transcend epistemological specifics of individual branches of research and would try to answer the profoundest questions of human existence.

In the beginning of a new millenium we are aware that the notion of truth presents many more aspects than the traditional *adaequatio intellectus et rei*, that searching for truth, knowing truth and remaining in truth have a bearing not only on the norms and canons of theoretical and empirical knowledge, but also on the creative activity and behaviour, religious life, culture as a whole and its various manifestations, involving all the aspects of man’s life in this world. However the liberation from universal claims of the science of the beginning of the 20<sup>th</sup> century, which is actually under way, must not mean giving up attempts at responsible and, in a certain sense, rigorous thinking, which has been at all times determining the norms of existence of the scientific community and supporting the Church’s belief that it is possible to live according to a truth encompassing and guiding the whole of human existence.

Although Russian philosophy has always maintained the thesis according to which the human intellect is fundamentally whole and all the energies of a man’s soul should be united in an ascension to an innermost core (or perhaps precisely because of the circumstance), the problem of science vs. religion has not had, in Russian culture, the tension and importance which allow us to speak of it almost as the major determinant factor in the history of Western thought. Because of that the discussion of this most important problem goes on rather languidly in Russia, the outlines of related problems remain unclear, and the manner of posing questions and the strategy of thinking are more often than not completely irresponsible.

It must be noted besides that “theology” has always meant in Russia (and still means) almost exclusively “the writings of Fathers of the Church”, that is, study of patristics. Yet patrology cannot be limited exclusively to philological research, though it is of course an important part of any attempt at interpretation. Today’s habit of retelling what the Saint Fathers had said using the “language immanent to tradition” and a certain hostile attitude towards the “technical character” of scholarly thought which, it is claimed, renders today’s world too secular and deprives it of individuality, have occasioned in today’s Russia a wide gap between the religious life on the one hand and the intellectual and cultural life on the other hand, which exists despite all exterior appearance of welfare. This situation leads to a painful contradiction between contemporary Russia’s efforts to reacquire its cultural heritage and to become an equal member of the world’s intellectual and cultural community. The gap just mentioned influences scientific, theological and philosophical thinking, education, politics and (very often) the “private” professional careers of scholars, provoking a kind of “ethical schizophrenia”, i.e. an inability (and sometimes a determined refusal) to reconcile theoretical interests and religious life.

We think that discussions of the theme of science vs. faith, science and religion could 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 in a common space doing a joint work. This common space is called the *hermeneutical problem in science and theology*.

## Biography

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## *Introduction*

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### ***The Three Goals***

Now, having determined that the dialogue between science and religion is not just everybody’s private concern, but an important element of culture, first of all of the cultural environment which we are now creating in Russia, we would like to define the *immediate* goals which are to be achieved in this dialogue. These are:

1. Getting rid of mutual prejudice
2. Delimitation of the areas of competence.

We think that the majority of ugly intellectual products in theological interpretation of science as well as in scientific interpretation of theology are consequences of an inability to perceive the limits of competence of both.

Let it be repeated: we want to point out the *immediate* goals. Speaking about the delimitation of areas of competence we are of course speaking about the negative aspect of the process. Yet it must be supported by quite positive efforts. Border lines are determined not by a simple non-interference treaty, but as a result of understanding, by the religious and scientific communities, of the limits, goals and methods of their activities, i.e. as a result of reflection on the basis which must take place, in today’s science as well as in today’s theology, “in the presence of another”, since such a reflection becomes possible only in a situation when “another” is met face to face. And it is possible to get rid of prejudice against another, let us repeat it, only if one gets rid of prejudice concerning one’s own activity. This leads us to a third goal:

3. An interesting problem, on which we could work together.

To be frank, we see no other way to get rid of mutual prejudice except working together. What, then, could the domain of such work in common be?

## *Problem of Interpretation*

One of its “areas” could be called the problem of interpretation or hermeneutical problem in theology and science. Generally speaking, an initial recognition of the fact that interpretation is necessary and inevitable could help the parties to avoid meaningless, unnecessary and unmotivated conflicts. In our example (the Book of Genesis on the one hand and evolutionary biology on the other) “literal meanings of texts” often clash, and the “conflicting parties”, as a result of incidentals, believe that they are doing the same thing and speaking about the same thing. For instance, one tries to interpret the Book of Genesis as a text dealing with scientific cosmology or biology. Yet beforehand one must determine whether the Book of Genesis offers any reason for such interpretation, which is accepted as the main and sometimes the only possible one.

As to theology, it has been understood long ago that a text (and particularly a holy text) never “speaks by itself”. A holy text is always a relation between the divine author and the reader (listener) which includes an inevitable sequence of mediations, made up of (not divine, but) human compiler(s) of the texts, scribes, interpreters who depend on historical and cultural contexts. *Hermeneutics* deals with the role and the limits of these mediations, studies possible approaches to the text and the various ways of understanding it and revealing its fundamental meaning. Hermeneutics existed before Christ and continued to exist after Christ. The hermeneutical tradition is more than 2000 years old. The term itself comes from the Greek *hermeneuo* meaning *I interpret, I explain*. Within this tradition we observe different and sometimes conflicting schools, yet there has always existed a *consensus omnium* concerning the following points.

Any difficult text meaning much for a culture cannot be easily understood any longer when it is one or two centuries old. Any historian who has dealt with old documents, any researcher who has turned to the original writings of his predecessors (not to modern texts which retell the history in today’s language, but to the original texts) knows that such texts do not speak to us immediately, that a serious work is needed to make such a text tell us something important. One simple reflection is enough to illustrate this point. The text of the Pentateuch of Moses is written in ancient Hebrew, and Homer’s poems in Greek. If we want to understand them at all, we need mediators, at the very least in the shape of a grammar and a dictionary. And a grammar and a dictionary are sufficiently active mediators: they are accumulating a large share of “ulterior knowledge” in order to become a bridge letting us access a text. Yet the problem is not limited to that. Very long ago there existed already schools of hermeneutics which believed that behind the “literal” meaning we could access using a grammar and a dictionary, there was also hiding something like an implied meaning. This implied meaning must therefore be discovered and explained. Already the oldest schools of theology, like the school of Alexandria, allowed a special kind of interpretation which was called allegorical or typological (these interpretations differ, but we shall not go into the complicated

classification of various ways of interpretation). This meant that some “other” text was read behind “the literal meaning”, with all due respect for vocabulary, grammar and syntax.

In this there had been a predecessor, the hermeneutical tradition of antiquity, which deserves a special mention. A part of the knowledge preserved and transmitted by the Stoic school was a natural science of a kind. Of course it was not a science as understood today, and yet it was a science in that it used a certain set of concepts, required well-grounded proof and developed refined logical reasoning in order to ensure the necessary soundness of reflection. And since in the time of Stoics Homer’s poems were no longer immediately understandable, while they remained a “culture-shaping” basis of Hellenism, it was thought necessary to learn to read Homer in a certain way. Among other things the Stoics tried to interpret Homer’s texts in a “scientific” way, as a source of natural philosophy. This is a curious precedent.

### *Scientific Mainstream*

We would like to point out that there is a certain mainstream trend in such discussions. It makes one think of Stoics’ attempts at scientific interpretation of Homer. The idea sounds like the following: the Book of Genesis tells us about the stages of the world creation, and today’s cosmology has developed the big bang theory, and so on. And it is precisely *that* (what today’s cosmology talks about) that the Book of Genesis means, only the “human” compiler of the text, unlike the divine author (who, as it seems to be generally implied since the time of Galileo and Kepler, was thinking in terms of differential equations with partial derivatives and Hilbert’s space), could not adequately express all these complex notions.

Looking now from a long distance at what the Stoics did, one understands that perhaps their activity of interpreting Homer in terms of natural philosophy was not quite meaningless and may be interesting to some extent, yet Homer on his own, without stoical interpretation, and stoic philosophy itself, without its attempts at interpreting Homer, are much more interesting and important than scientific interpretation of the Iliad and the Odyssey. Fortunately Homer’s texts themselves have come down to us, not only their “correct” “scientific” interpretation. It is not such hermeneutics that we want to speak about today in connection with the dialogue between science and religion, but of the hermeneutical problem as such, which is common to both religion and science.

### *Description And The Choice of Language*

And what is this problem? One could object that the “text of science” (let us repeat that we are talking about natural science) differs from all other texts

specifically in that it is read in a completely unambiguous way and offers no room for interpretation. The generally accepted notion of natural science is that science does not interpret – it describes and “explains” facts repeatedly observed during scientific research.

According to a very old tradition going back as far as J.S.Mill’s *System of Logic* at least (if not as far as Aristotle’s *Second Analytics*), a scientific explanation must have the form of a logical deduction starting from general theses of a theory (“laws of nature”) which function as “explanatory knowledge” (*explanans*) and arriving (as the last link in the logical deduction chain) at the description of a given fact which must be explained (*explanandum*).

This form of deductive nomological explanation inevitably leads to certain limitations in the *language of description*: it must (at least) include the terms used for the formulation of general laws, because otherwise it is impossible to get the description of a fact in the form of a *logical conclusion* based on the most general principles of a theory as on its premises.

The following example is borrowed from the illuminating book of Roberto Tirretti *Creative Understanding. Philosophical Reflection on Physics*, University of Chicago Press, 1990. Let us suppose that we are explaining the fact that this thing which I see before me is black. Our explanation is: there is a “law of nature” according to which all ravens are black. This is the major premise. The minor premise is: this thing here is a raven (this is one more established “scientific” fact). We conclude from that that this thing here is black, i.e. we really explain (in the accepted sense) the original fact which must be explained. Yet in order to be able to make the conclusion, it is necessary that the description of this *explanandum* contain the same terms as the formulation of the “laws of nature”. In our example this is the predicate “black”. If we state that this thing before our eyes has wings, a nose or is warm, we shall not be able to explain “using the universal laws of nature”, why this is so.

Of course in today’s science laws are usually formulated in terms which differ from the casual descriptive language we are using in everyday life. These terms are usually a part of the language of this or that science and are defined by their position within the system. If natural philosophers and scientists remained limited to the scope of a *natural* language, they could never have combined and explained within the framework of one scientific theory such facts as apples falling down, heavenly bodies moving in regular orbits and expanding galaxies.

More than that, almost all modern well-developed theories include elements of the “preferred” “privileged” language, the language of mathematics. And, as we have shown, this means that the privileged language of *factual description* must become the same. Does this not imply that certain concepts are read into facts? Does this not point to the existence of unconscious premises determining the

choice of the privileged language of science? The discovery of these premises is one of the most important problems, hermeneutical in nature.

The choice, by the creators of the modern science, of a certain language as the proper language of natural philosophy was motivated precisely by the notion according to which the universe is a kind of project realized by the Creator and developed in the language of mathematics. In one of his writings Galileo stated in 1623: “Philosophy (natural philosophy) is written in this grand book, the universe, which stands constantly open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circles and other geometric figures, without which it is humanly impossible to understand a single word of it, without these, one wanders about in a dark labyrinth”<sup>1</sup>.

It is quite clear from this text that Galileo supposes the existence of a “literal sense” contained in natural phenomena that he supposes that there exists an “original language” which records this sense. Therefore the “only correct” language describing the laws of the universe must be selected, and leads to the selection of the “only correct” language of scientific “description” of facts, if we want this description to be really scientific.

It is quite clear that the search for the “only correct” language expressing the sense (the “literal sense”) in an absolutely univocal way is nothing else than an attempt at avoiding the need for interpretation. It is clear that this attempt is brought about by the inherent problems of the hermeneutical approach itself. This became clearly manifest already within the framework of Christian exegesis, for example in the dispute of theologians of Alexandria and Antiochus. The question must unavoidably be raised: to what extent can this or that way of interpretation (exegesis) be verified? What meaning could we not suppose to be hidden behind the lines of the Holy Writ? What is the criterion of the universal relevance of my interpretation? Of course the church tradition possesses certain ways of verification dependent on the *consensus patrum* and preserved by the Church. Yet these criteria rely on certain theological premises which can hardly be unanimously accepted. That is why we just point out this difficulty and the fact that hermeneutics as a science sets itself precisely the goal of defending the text from arbitrary ideas of this or that interpreter.

### ***Hermeneutical Dimension***

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<sup>1</sup> Galileo Galilei, *The Assayer*. In: S. Drake, *Discoveries and Opinions of Galileo*. N.Y.: Doubleday Anchor, 1957, pp. 237f.



On the other hand we would also like to draw attention to the impossibility to avoid the hermeneutical dimension as such, to its irreducibility. The ways of understanding the Holy Writ accepted by the church tradition often stop to satisfy people, and they say: “No – we shall address the text itself!” Luther did that. He rejected all interpreting texts and said: “No, I shall read the Holy Writ itself, *sola Scriptura!*” At a certain moment of history such a step may be extremely fruitful and widen the scope of our vision to an immense extent. Yet is it possible to *read the Holy Writ itself*? May not this or that theological tradition represent *the very mode of existence* of the meaning of the Holy Writ? And an attempt to discard all interpretations does not at all actually lead to an understanding of the “literal sense”: it just marks a transition to another hermeneutical tradition (which has not even sprung up from scratch). For instance, Luther, relying on the Latin version of St. Paul’s Epistle to the Romans (1.17) and interpreting this passage, understood in a certain way the words *justitia Dei* on the basis of his own purifying and “indisputable” (as he believed) experience of “being justified by faith”<sup>2</sup>.

And Galileo also said: “I shall discard the whole of Aristotle’s physics, the whole of the tradition of describing the essence of natural phenomena and shall read instead the book of nature itself”. Yet while he was relying in that reading on his own observations and experiences which he believed to be undisputable (since, like Luther’s faith, they seemed to him based on the immediately convincing facts), Galileo supposed to have *guessed* what was the real language of nature in which it speaks to penetrating observers. Of course nature did not remain “silent” before Galileo. Nature is always speaking with us and in us, we are writing poems and novels about it, the Greeks were writing philosophical texts on nature. But Galileo said: “No – I know the original language of nature which is the language of mathematics”. Yet actually the choice of this language, in its turn, was not without its premises either. It relied on the above-mentioned notion according to which the universe was “written” by the Creator in the language of mathematics. And just as in the case of theological exegesis, we can question the grounds on which this language was chosen, its limitations and the scope of its “explaining power”.

Yet the choice of the language of theory, as has been said, inevitably means, for science, the choice of the language of factual description. Thus Galileo undertook the obligation to read the universe and its phenomena in a certain language.

It is quite obvious that so-called facts do not remain indifferent to the language in which they are described. We do not think that the notion of a “pure” fact, completely unconnected with the sphere of language, human activity and human interests in general may have a sense at all. In exactly the same way, the literal meaning of a text, without any interpretation, cannot be arrived at. The facts

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<sup>2</sup> Cf. Patrick A. Heelan, Galileo, *Luther and the Hermeneutics of Natural Science*. In: *The Questions of Hermeneutics*, ed. T.J. Stepleton. The Netherland: Kuwer Academic Publishers, 1994, pp. 363–375.

of science are loaded with theory and technology of experiment. Natural sciences do not escape the scope of hermeneutics any more than humanities.

### *Conclusion*

To conclude, we would like to cite an example borrowed from Norwood Russell Hanson: Tycho Brahe (a firm believer in immobility of the Earth up to his death) and his assistant Johann Kepler (consistently sharing Copernicus' views) observe the sunrise. Hanson asks: Can one say that Kepler and Tycho Brahe see the same phenomenon in the East when the day breaks?

And here is one more view of the sunrise: "Eos, the rose-fingered heraldress of the morning, found them weeping..." (Iliad. 23, 109).

Are those three actually observing the same fact? Does not the context of this or that theory (the Greek word means just "observation"), does not the context of the world at large determine our view? The interpreters of ancient believed that, and today's hermeneutical philosophy insists on that. If we allow the hermeneutical problem into the corpus of formalized natural sciences, will not the self-consciousness of science itself change considerably? Will there not appear a reason to reject some of its essential prejudices and exaggerated claims? Will there not appear a sufficiently well delimited (and very important) ground for common work of theologians and scientists?