Paper Title: Philosophical and Theological Fundamentals of the Dialogue between Science and Religious Belief

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Abstract:

The paper applies to an elementary, but key problem of the fundamentals of the science-religion dialogue. The article is concerned with an approach of the nature of the dialogue in the form of the question – what exactly is the dialogue? Through an uncovering of the semantic sense of the term "dialogue", the article uncovers its purpose and mentions a way of overcoming the problems within the interdisciplinary dialogue (science-religion dialogue).

The way of processing the dialogue's fundamental problem consists of analyzing and following the classification and typology of the constitutive elements of the dialogue. It concerns the context of the constitutive elements on the basis of and within which the dialogue is realized.

The dialogue between science and faith has common features and differences. Science and faith express themselves in language. Language has some features that are common for both science and faith and some that are different. The differences are as follows.

The scientific arguments strive for intersubjectivism and external reasoning. The religious arguments lean on the subjective experience and internal reasoning, derived from experience or from the jointly adopted teaching of the given faith. The sentences of science are supported by the empirical confirmation. The sentences of faith are supported by the whole experience of person. Empirical science deals with just a certain part, for example physical, chemical, biological. Religion deals with all spheres of human being. The statements of empirical sciences play the role of a prediction of how something would behave in the future in accordance with the natural laws. Religion plays an integrated function, putting together, into one unit, all spheres of human's being. The apparent contradictions result when their role and goals are interchanged, eventually the incorrect deduction is a result of the truths of faith or from the sacramental readings of the given faith. The role of science is to explain one field; the role of religion is to explain the whole. Their dialogue can consist in the ability of science to enrich faith with detailed knowledge of particular fields. Opposite, faith can interrelate with scientific arguments by providing sense of life and by providing moral values for scientific research resulting from the position of science within the whole of human knowledge and behavior.

The expected conclusion of the paper finds language as a basic constitutive element of the dialogue and uncovers the variety of specific terminologies of particular scientific branches as one of the main reasons for the limited ability of these branches to communicate (e.g.: science and theology relations).

Biographies:

Peter Volek graduated from University Innsbruck (Austria) with the degree PhD. in Philosophy, M.A. in Philosophy and Comenius University in Bratislava

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Pavol Labuda graduated from Matej Bel University in Banska Bystrica with the degree M.A. in Philosophy and History. He currently lectures at the Catholic University in Ruzomberok, Faculty of Philosophy (Department of Philosophy) where he has taught courses in medieval philosophy and metaphysics. His research focuses on the interface of science and religion and onto-theology. Currently, he is completing his PhD thesis entitled "Onto-theology as a structure of philosophical concepts." He has participated in many conferences and published a number of papers in the area of metaphysics. He has also been a contact person of the LSI Polylogos - Slovakia since July 2002.

Paper:

The paper deals with the issues of the science and religion dialogue. Through referring to the language as a constitutive element of a dialogue and determining language specifications in the area of science and religion, we will try to determine the most frequent reasons of the complications of their dialogue. We assume that the awareness of language approaches specifications (the similarities and differences) of these two aspects of human existence can help to overcome the problems within their dialogue.

Undeniably, science and religion are specific manifestations of human life. Through both of them, the human being transcends the directness of sensual world of natural process. The both, science and religion enable human being to return to it by awareness of personal responsibility for this world. Each of them performs it in a different way. Both the transcendence by means of science and the transcendence based on religion have its differences but also mutual characteristics. The common feature is the thinking as a specific human activity. Moreover, it is a dialogue in a form of communication based on conceptual thinking. Contrary to the other forms of communication that are only the combinations of direct sensual perceptions, impressions and consecutive reactions, this dialogue has the form of human communication that combines the meanings (contents of words), so it means the communication of concepts on the basis of certain rules. The platform of these rules is language.

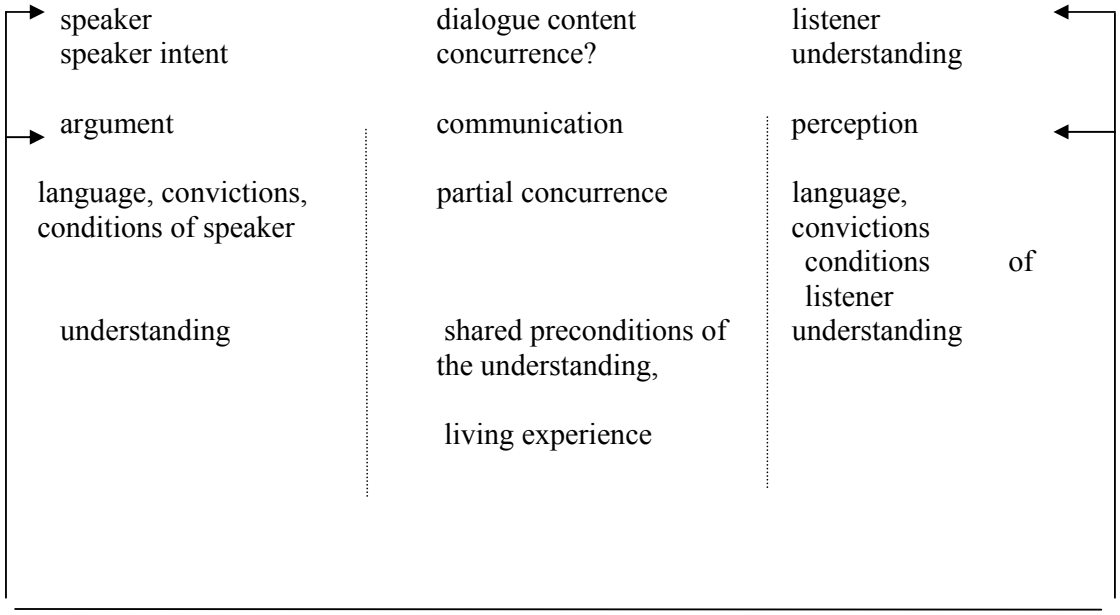
In that manner, dialogue is the verbal manifestation of human ideas regardless of the fact that it is the written or spoken language. The etymology of the word dialogue refers to the conceptual thinking expressed through language (speech). The Greek term *διάλογος* includes the meanings of the prefixes *δι-* and *δια-* that express the duality in the meaning of the relation on the one hand and the demonstrativeness through or just by the means of what happens in this relation. Through *λόγος*, i.e. by means of word or speech (metaphorically). The Greek word *λόγος* presents language as by what the thinking is expressed.

If the human being wants to communicate the content of the thinking, to express what s/he thinks, s/he is dependent to use language. Language (natural language) is an open system with the operatively accepted rules of functioning. Language is something what is intrinsic to the human being, what we do not have to learn. The giveness of language must be initiated in a certain way. Language is not a system of material elements (writing or sound). The primacy of the language function consists in materialization, mediation of thinking. Language is the language of thinking. Without intentionality of human thinking it would be only the chaos of empty elements. It is not that the complete system of language is inherent or immanent. The inherent part is the basic part of language structure. A certain role is played by a historical accidental condition that enters our spiritual-cultural world of understanding, the world of dialogue as a determining condition. The concrete language we are bound by with a concrete language community. The ability of human being to learn the language of a different socio-cultural world shows that the conceptual thinking must be communicated in a certain language, nevertheless it does not have to be a concrete language necessarily. The conceptual thinking has an essential property and it is the universal communicability that is provided by the use of language. This property is not the property of the form of communication through the visions combination.

The dialogue as a way of human communication can be done only under certain conditions, that is, its participants are willing and able to discuss. The real dialogue is also characterized by the other characteristics. Each member of the dialogue keeps his/her own argument, however, is willing to hear the partner of a dialogue. Therefore the dialogue puts a demand on rationality and, consequently, on truth. That is to say, each argument that is the content of the dialogue puts the demand on truth. People can perform the dialogue on various levels, for example within one political party, among political parties, between a political and religious authority, within one scientific community of one science, within one world-opinion or religion, among religions, among world-opinions, among scientific communities of more sciences, between science and religion. The dialogue can have a form of personal conversation, written form, or mixed form. Moreover, non-verbal elements as gestures, mimics, voice tone, in addition to verbal elements, can be included into the understanding of the dialogue. There should be a precondition of understanding and mutual communication in order to realize the dialogue in all of its forms. We can express this structure of the dialogue in the scheme of mutual communication. There are at least two participants, speaker and listener. Their positions can be changed because a speaker can become a listener and the listener can become the speaker. If there are more participants of the communication, one speaker can have more listeners. These participants of the dialogue can and should change their roles of a speaker and a listener. If not, a dialogue will become a monologue. Each member of the dialogue has his/her own arguments. Their understanding is possible through common living experience or interrelation with life. Anything is understandable for both partners connected with their common living experience. Moreover, there are events that just one of the partners has experienced, and because of this, the conclusions said about this experience are understandable only for him/her, especially if these are diametrically different from the other partners experience. The purpose of the dialogue is not only to talk about a common field, but also to explain own experience by using generally accepted terms. This can explain the reasons for maintaining some arguments. This can also make it obvious that the area of shared experience is wider than it was previously assumed. Some experience can become

more understandable while using the language of other experience, other traditions, other basic starting-points. The shared areas of the dialogue include various layers: sentence, advisement of, reasoning, convictions. Their sense can be differently appreciated by individual participants of the dialogue that shows the differences in the conditions of understanding. These can be seen as layers in the fields of conceptual frame senses (frameworks).[1] The dialogue among people in the Christian theological thought can also be perceived as an imitation of relations among Divine persons in the Trinity. In such understanding, the endeavor for the dialogue is connected to an effort to love the other, to make one with the other, to hear carefully the other opinions and language, and to look for something that is common for both of them and connects the participants of the dialogue.

Schedule of mutual communication[2]



The dialogue between science and faith must observe their similarities and differences. Religious and empirical experience is expressed through language. The religious as well as secular faith can be divided into the faith in something or someone or faith that can be expressed by some content. Robert Audi calls the first type of faith attitudinal faith and the second propositional faith. Audi also suggests epistemological difference between faith and belief. Faith does not include belief; it just implies the disposition to belief. Propositional faith is compatible with a high level of doubt about proposition.[3] Religious faith contains a high level of certainty of his holder. If it was not so, the holder would be willing to give up easily it in favor of the other faith. The

[1] Stephan Körner Suggests New Terms Ranges for Real and Ideal Categorial and Posterior Terms. See. Stephan Körner: Über ontologische Notwendigkeit und die Begründung ontologischer Prinzipien. In: *Neue Hefte für Philosophie*, Heft 14 (1978), 8-18.

[2] It is Concerned with Otto Muck Scheme. See. Otto Muck: Rationale Strukturen des Dialogs über Glaubensfragen. In: Hugo Bogensberger, Franz Ferschl, Reihard Kögerler, Wilhelm Zauner (Hg.): *Erkenntniswege in der Theologie*. Graz-Wien-Köln: Styria, 1998, 110.

[3] See Robert Audi: Faith, Belief, and Rationality. In: *Philosophical Perspectives*, Vol 5, Issue Philosophy of Religion (1991), 215-216.

expression of Alvin Planting confirms this conclusion. Planting says that some religious beliefs are basic, not derived from any other, and of them are derived other beliefs[4].

The laws, hypotheses, and theories of science represent some generalization of empirical experience. When comparing language analysis of science and faith it is possible to recognize common and different elements. The common elements include that science and faith notice the empirical experience of a person. Moreover, faith notices religious experience. The own religious experience can be, according to George Finger Thomas, perceived in wider or narrow sense that influences the division of religious explanations. It can be viewed as certain concrete experience of the divine in its narrow sense that associates some content. Pursuant to this experience, the certain places and times (cathedral, Passover) as well as certain acts (prayer) are explained as religious experience. The wider sense allows understanding the religious experience as an interpretation of everything, what a person meets, and the acts understands as an answer to this appeal[5]. The other similarities of science and faith consist of their usage of interpretation and confirmation as their methods. Their difference lies in the field of applications and in the way of explanation and confirmation. Bocheński tries to explain the difference between science and faith closer.[6] According to Bocheński, the believer constructs the basic dogma of particular religion as a sentence of interpretation before the act of faith. This process is in some sense similar to the creation of hypotheses in science; however, in other respect it is different. Science and faith differ in the range of experience they perceive. Science focuses on experience that can be exactly measured. It observes just specific scope of life in term of method of its science, for example physical, chemical, biological. Faith observes all experience of a person. The other difference is that science focuses entirely on the sentences about facts, whereas faith observes also the sentences about aesthetic and moral values. In a specific period of life, a believer creates a religious hypothesis by accepting the basic faith of some religion. It then plays a role of axiom, from which he/she deduces everything else. As the life experience of people is different, it is possible to explain the difficulty to persuade the other one about the accuracy of their own religious hypothesis, as well as the other difficulty, that is to overcome it by falsification.[7] The most plausible field that the religious hypothesis has to explain is the field of religious experience. According the George Henrik von Wright, the scientific explanation, explaining empirical experience, can be divided into two traditions: Galileo and Aristotle tradition. [8] Galileo tradition was characterized by the strong emphasis on the unity of methods as a mathematical ideal type of science and by an importance of general laws. It has a strong influence after-Newton science and positivism. Aristotle tradition prospered in the disciplines that used the terms of function, finality, system of organic unit and where intentionality

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[4] See Alvin Plantinga: Reason and Belief in God. In: Alvin Plantinga, Nicholas Wolterstoff (eds.): *Faith and Rationality: Reason and Belief in God*. Notre Dame Ind.: Notre Dame University Press, 1983, 16-93.

[5] See George Finger Thomas: *Philosophy and Religious Belief*. New York: Charles Scribner´s Sons, 1970, s. 63.

[6] See Jozef Maria Bocheński: *Logik der Religion*. 2. Auflage, Paderborn: Schöningh, 1981 (originál: Logic of Religion, New York: New York University Press, 1965), s. 127-128.

[7] Ian G. Barbour Supports this Opinion, according to him the Religious Explanation Requires Higher Personal Involvement then Scientific Explanation. Porov. Ian Greame Barbour: *Issues in Science and Religion*. London: S.C.M. Press, 1966, 185.

[8] See Georg Henrik von Wright: *Explanation and Understanding*. Ithaca: Cornell University Press, 1971, Chap. 1. Galileo tradition has little to do with the position of Galileo himself.

played an important role. Aristotle tradition principally allows a plurality of explanation types; however, it de facto preferred theological explanations. Galileo explanation tries to reduce teleological explanations in biology and spiritual sciences to causal explanations. Ladislav Kvasz offers the other type of generalization and comparison of particular groups of scientific explanations in the field of physics. He distinguishes several representations in the development of language of physics from Galileo physics to the present time.[9] His interpretation includes the representations of Galileo physics, Cartesian physics, Newton physics, theories of continuums and fluids, theory of energies and atoms, theory of field, quantum mechanics and quantum theory of field. Variation in these representations can be interpreted as variation of the discrete a continual way of representation. None of these representations constitutes full frame of the world, captures all its events, so it remains unfulfilled. The continual and discrete fragment can explain the whole reality together; however, they are mutually incompatible. More aspects of physics in the process of representation that were postulated only formally are now becoming a part of the world representation. Consequently, it is possible to notice the growth of status change generality. Continual and discrete fragment as representations, although they are incompatible, represent the ways of explanation in physics. They can be viewed as incompatible twins that explain specific – physical – field of empirical world. Although there are more opinions in the interpretation of scientific explanation, their common element is that they are derived from empirical experience by using certain scientific language.

After religious explanation, a believer verifies the basic dogma through other living experience.[10] Therefore, science is similar to faith in the problem of confirmation. Hypothesis sentences or theories are confirmed through empirical verifications also in science. However, the field of verification is the whole living experience in faith, while in science, it is particular scientific field. So the role, expected on the religious explanation, differ from scientific explanation. Scientific hypothesis and theories in science allows exact measure of empirical consequences in the future. On the ground of the scientific knowledge, we can accurately compute the bridges width from relevant material needed for necessary weight, engine performance, and the shape of a fuselage and wing for necessary take-off and flying speed. The scientific hypothesis and theories have the function of results prediction according to these hypotheses or laws under the given values and conditions. On the other hand, the religious explanations integrate all spheres of living into one unit. They allow a person to obtain a sense of entity as well as the ability to make decisions according to position of an act target within a unit target. This can be marked as an integrating function of the religious explanation.[11]

Despite these different functions, science and faith have a common field of their interest. These are for example the space formation, creation of life and person on the earth. Science and faith strive to determine the arguments for their functions in these fields. Science starts from the scientific theories and hypotheses and faith starts

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[9] See Ladislav Kvasz: Epistemologické otázky fyziky: od antinómie čistého rozumu k expresívnym medziam jazyka. [Epistemological Questions of Physics: From the Antinomies of Pure Reason to Expressive Boundaries of Language.] In: *Organon F*, 11 (2004) 4, 362-381; Ladislav Kvasz: Epistemologické otázky modernej fyziky. [Epistemological Questions of Modern Physics]. In: *Organon F*, 12 (2005) 1, 40-61.

[10] To the Religious Confirmation see. Jozef Maria Bocheński: *Logik der Religion*. 2. Auflage, Paderborn: Schöningh, 1981, 129-132

[11] See Otto Muck: Rationale Strukturen des Dialogs über Glaubensfragen. In: Hugo Bogensberger, Franz Ferschl, Reihard Kögerler, Wilhelm Zauner (Hg.): *Erkenntniswege in der Theologie*. Graz-Wien-Köln: Styria, 1998, 133.

from sacral texts or source of faith. Sometimes they can come to seemingly or really self-repugnant results. Then the role of both science and faith is to investigate if the results are performed in line with the role of its own competence. Some contradictions can result from overcoming the competencies. The other can result from the faith that the science considers its hypotheses to be certain, non-false-able results, or that the faith made incorrect deductions of its religion basic dogma. The violation of logical laws or usage of additional unverified premises while making a deduction is a reason of incorrect deduction. Their dialogue can consist in uncovering the type of premises, axioms, and kinds of particular arguments reason. Then it can consist of the conclusions of certain faith require the knowledge of science for its application. Science can contribute to the development of, for example, moral and aesthetic argument with its new results. The latest investigations in, for example, genetics, medical and bioethical branches show the new problems that require ethical evaluation. It is concerned with the problems such as embryo experiments, cloning, genetic modification of plants and food. Especially these branches require the interrelation of the latest investigations and opportunities of medicine, genetics and biotechnologies with the opinions of faith derived from basic dogma and give ethical evaluation to particular opportunities of investigation as well as proposal for their juristic lay in legislation.