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The End(s) of All Things
Anthropological and Teleological Aspects of
Cosmology in the Dialogue of Philosophy,
Theology and Science.

Disertační práce

Autor: Mgr. Radek Labaj, DiS.

Katedra: Systematická teologie

Vedoucí práce: doc. ThDr. Petr Macek, PhD.

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Prohlášení

Prohlašuji, že jsem tuto disertační práci s názvem *The End(s) of All Things: Anthropological and Teleological Aspects of Cosmology in the Dialogue of Philosophy, Theology and Science* napsal samostatně a výhradně s použitím uvedených pramenů.

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Anotace

Cílem této disertace je prozkoumat vybrané antropologické a teleologické aspekty vědecké kosmologie se zvláštním zřetelem k dílu Alexeje Nesteruka. Prezentace Nesterukova specifického přístupu k problematice dialogu teologie a vědy pak tvoří jádro této práce, která zároveň může být chápána jako pokus o komplexní představení Nesterukova myšlení širší akademické obci. Prezentace Nesterukova díla ve světle Moltmanova myšlení navíc připravuje půdu pro další komparativní studie jejich dílčích přístupů k otázce dialogu teologie a vědy a do určité míry také přináší základní vodítka pro ‚zhodnocení‘ Nesterukova díla z pohledu protestantské teologie. Po úvodním výčtu dílčích problémů týkajících se komplikovaného vztahu kosmologie a teologie se práce zaměřuje na interakci Nesterukova myšlení s vybranými prvky z díla Murphy a Ellise ‚On the Moral Nature of the Universe‘. Společným cílem všech výše zmíněných je nová syntéza teologie, filosofie a vědy, jež je schopná ‚uzdravit rozdělenou mysl moderního člověka‘. Uplatnění vědecké kosmologie a zdůraznění jejich ‚mezních otázek‘ je vede k tvrzení, že teologie je s to poskytnout chybějící odpovědi a společně s vědami se pokusit ‚narýsovat‘ ucelený a koherentní obraz

skutečnosti. Vyhlížené osvětlení ‚tajemství člověka a vesmíru‘ – tj. ucelený a koherentní ‚obraz světa‘ – je Nesterukem ‚artikulován‘ pomocí existenciální fenomenologie. Univerzální hnací síla porozumět a najít naše místo ve světě tvoří ústřední bod Nesterukova díla a jeho důrazu na ‚apofatický výklad‘ vědecké kosmologie. Jeho inspirativní vize ‚konc(-e/ů) všech věcí‘ přináší nejen celostný obraz skutečnosti, ale také více osobní a zároveň pokornější přístup k našemu bytí ve světě.

Klíčová slova

Kosmologie, světonázor, antropologie, teleologie, přirozená teologie, fenomenologická teologie, intencionalita, Alexej Nesteruk.

Summary

The aim of this dissertation is to examine the chosen anthropological and teleological aspects of scientific cosmology with the special heed to the works of Alexei Nesteruk. The presentation of Nesteruk's specific approach to the dialogue of theology and science constitutes the core of our study which also could be understood as an attempt for a complex introduction of Nesteruk's thought to the wider academic community. Presentation of Nesteruk's work in the light of Moltmann's theology prepares the ground for any further comparative studies of their approaches to the dialogue of theology and science, and provides, to a limited extent, the basis for ‚evaluation‘ of Nesteruk's work from the perspective of Protestant

theology. After the introductory account of the basic issues of the complicated problem of the relation of cosmology and theology is provided the study concentrates on the interaction of Nesteruk's thought with the chosen elements of Murphy's and Ellis' work 'On the Moral Nature of the Universe'. All of the thinkers mentioned above aim to provide a new synthesis of theology, philosophy and the sciences in order to 'heal' the 'disintegrated modern mind'. Employing scientific cosmology and listening to its limit questions they claim that theology can provide the lacking answers and together with the sciences attempt to draw the unified and coherent picture of reality. The much needed elucidation of the 'Mystery' of 'man and the universe' – a 'unified and coherent worldview' – is 'articulated' by Nesteruk as he employs the existential phenomenology. The 'universal drive' to understand our position in the world constitutes the focal point of Nesteruk's research and of his emphasis on apophatic explication of scientific cosmology. His inspiring vision of the end(s) of all things results not only in a holistic picture of reality but also in a more personal and humble approach to our being in the world.

Keywords

Cosmology, worldview, anthropology, teleology, natural theology, phenomenological theology, intentionality, Alexei Nesteruk.

Poděkování

Rád bych zde poděkoval všem, kteří mi byli povzbuzením a inspirací v průběhu celého studia. Předně mému školiteli doc. Petru Mackovi za jeho cenné rady a trpělivé vedení od samého začátku studia. Díky patří také dr. Janu Kranátovi za četné konzultace. Dále mým přátelům dr. Jarimu Kekäle za podnětné diskuse a Denise Schlesselman za pomoc s korekturou anglického textu disertace. V neposlední řadě děkuji také své širší i užší rodině za všestrannou podporu, zejména pak mé ženě Daniele za její vstřícnost, shovívavost a pochopení.

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Introduction

Return to Cosmology

The aim of and the motivation behind our study can be summarized with a motto: *„Return to Cosmology‘*. It is meant not only to appeal to the fascinating world of modern physical cosmology, but rather to point out its importance and implications for theology and its interactions with the natural sciences. Employing scientific cosmology in their research, theologians can go further and together with scientists try to see and draw the grandeur of the ultimate picture of reality. Scientific cosmology was not (up to the mid-twentieth century) considered as a science *sensu stricto* but because of its speculative character was rather pushed aside as pseudoscience, not able to satisfy the rigors of the strict scientific method. A tremendous ‚turn of the tide‘ happened in the second half of the twentieth century which brought about a substantial change of attitude towards cosmology. Although its scientific status remains questionable, there is no doubt that the modern scientific cosmology became one of the fastest growing fields of research. With its specific subject matter and its ‚unlimited‘ number of points of reference, cosmology is flourishing not only as a scientific discipline but also on the ‚popular level‘ in a wider society. What could be the reason for such a change?

Physical cosmology as a branch of science (based on astronomy and astrophysics) is a relatively new discipline, but at

the same time it (implicitly) deals with the perennial questions of humanity. What's the nature of our world? Is it infinite? Eternal? Or will it have an end? It is an integral part of human nature to inquire and search for some framework that would give orientation and provide the needed answers concerning our position in the world. Scientific cosmology has obvious anthropological and teleological implications. We are prone to ask the limit questions: *Who are we human beings? Where do we come from and where are we going?* The need to explain the 'mystery of man and the universe' took different expressions throughout the ages of human history. We can recall the first ancient mythological cosmologies on the one hand and the modern, widely expanding field of physical cosmology and its discoveries on the other. Although largely different, what unites them is the motivation of their architects - the 'universal drive' to understand our position in the 'overall scheme of things'. Modern physical cosmology, because of its 'object' of study - the entire universe as a whole - inevitably 'reaches the limits' and tests the explanatory power of scientific method itself. Its research has philosophical and theological implications, not just marginal, but rather elementary.

We could also refer to Immanuel Kant, the great modern philosopher, and question his philosophical development: at first an eager speculative cosmologist who was later in his philosophical career compelled (by careful analyses) to change his attitude to cosmology. His cautious approach to the 'ultimate questions' got a forceful expression during his work on his *Critiques*. Nevertheless, as Stephen Toulmin reminds us, they

were not the last words of Kant who had not abandoned cosmological speculation whatsoever.¹ Here we can make an allusion to Kant's late treatise *,The End of All Things'* (Das Ende Aller Dinge) which shows the rekindled interest in cosmology in the late phase of the philosophical career of the great philosopher. Perhaps, after all, there is a possibility for a brighter future of cosmology.

The growing number of popular books on cosmology in our bookstores shows that modern cosmologists can play an important (both positive and negative) role in society, offering their help to assist in order to satisfy the age-old hunger of humanity for understanding, orientation and the 'sense of belonging to the whole'. Indeed, that was the function of cosmology for centuries and it seems that it still has the same ambition. It always had the psychological, sociological and even religious function in communal life of humanity. It is precisely the search for 'the whole' that constitutes the problem of our present work. But how should we approach it? Thematizing such an ambiguous and elusive subject matter can be deemed unwise and misleading. Despite the obvious problems of our subject of inquiry we try to approach the issue of 'the whole' by raising the limit questions, thematizing 'the end/s of all things'. With reference to existential philosophy we will see the interconnectedness of the question about the end of the universe and the issue of the end of human life and thus try to show the

¹ Toulmin S., *The Return to Cosmology*, p. 3-8.

fruitfulness of those questions for our inquiry about the ultimate reality. The limit questions serve as a means to see the ultimate reality and the sense of our existence as a whole.

Our approach could be further characterized by the three basic features: (1) the ‚future perspective‘; (2) the phrase ‚philosophy in cosmology‘ and (3) the search for a *holistic* postmodern ‚worldview‘. The first feature could be illustrated by reference to *Jürgen Moltmann* and his ‚theology of hope‘: „*A proper theology would therefore have to be constructed in the light of its future goal. Eschatology should not be its end, but its beginning.*”² The second one could be best elucidated by the reference to *Michael Heller* and the Kraków School of science and religion. Finally, the last and the very important feature could be illustrated by *Ted Peters*³ and his well-renowned work ‚*God - the World’s Future*‘ (he could also stand alongside Moltmann and his future orientation of theology). Peter’s aim was to write a systematic theology for a ‚holistic‘ postmodern era. In his further developments he also examines the other trend of postmodernism – the *deconstructionist* approach. Nevertheless, he stays faithful to *holistic* postmodernism (while being able to appeal to some ‚insightful‘ correctives of deconstructionism):

² Moltmann, *Theology of Hope*, p. 16.

³ *Ted Peters* (1941) is a Lutheran theologian and Professor of Systematic Theology at Pacific Lutheran Theological Seminary. He is the editor of the journal *Dialogue* (a scholarly magazine of modern and postmodern theology) , and co-editor of *Theology and Science* (CTNS). He is author of numerous books which are concerned with the relationship of science and theology; besides *God – The World’s Future* we should also mention the following: *Cosmos as Creation*, *Science and Theology: The New Consonance*, and *Anticipating Omega: Science, Faith and our Ultimate Future*.

„On one point, however, I find I must simply depart from deconstructionist postmodernism, namely, I pursue construction of a universal vision of reality. I work with certain assumptions: theology seeks to be rooted in truth. For the truth to be truth, it must be more than the subjective projection of an individual from his or her social location; it must be rooted in objective reality as well as subjective perspective. This means, finally, that the truth must be one, and it must be encompassing. Otherwise, it is less than the truth.“⁴

The work of Ted Peters is also important because of its aim to treat the problem of relationship of theology and natural science (which is one of his ‚leading‘ interests) in the light of the Trinitarian theology.

Cosmology and Theology in Dialogue

The ‚limit‘, or ‚the boundary questions‘ raised by cosmology should be seen as challenges for theology as well as an invitation for a fruitful interaction with science. But if accepted, how are we to relate cosmology to theology? Is theology able to provide the ultimate picture of reality, in case scientific cosmology cannot? Or can a scientific picture of reality and a Christian worldview be seen as parts of one world, as one God’s creation which in spite of different pictures (provided by science and theology) does not have to be seen as divided, but as a unified and coherent representation of the fullness of reality? There is a growing number of theologians, scientists turned theologians

⁴ Peters T., God- the World’s Future, p. XVI.

and some active scientists who see the importance (not to say a necessity) to explore the relationship of theology and cosmology in order to reconstruct a unified worldview. To explore those questions and provide a general introduction to the complex problem of the relationship of theology and cosmology constitutes the content of *Chapter 1* of our study.

With the same intention in mind we follow those ‚researchers‘ who actively contribute to science-theology dialogue.⁵ More specifically, we will focus on a creative conversation with the three supporters of that enterprise: a Protestant theologian Jürgen Moltmann, the world-renowned cosmologist George F. R. Ellis and the Eastern Orthodox scientist and theologian Alexei Nesteruk.⁶ *The aim of our study is to examine the chosen anthropological and teleological aspects of scientific cosmology with the special heed to the works of Alexei Nesteruk. To do so, the fruitful interaction with the thinkers mentioned above is needed.* Our suggestion is to ‚read‘ the work of George Ellis and Nancey Murphy ‚*On the Moral Nature of the Universe*‘ in the light of the newer proposition of Alexei Nesteruk. The aim of both

⁵ Closer attention (besides the main figures in our discourse) will be given to the following proponents of the dialogue (and/or philosophers concerned with the issue of science and religion who are not necessarily active in this ‚dialogue‘): Philip Clayton, Louis Dupré, David R. Griffin, Alister E. McGrath, Arthur R. Peacocke, Terence Penelhum, John C. Polkinghorne, Holmes Rolston III, Robert J. Russell, Stephen E. Toulmin, John H. Yoder, and implicitly, through Nesteruk’s research, Thomas F. Torrance., Edmund Husserl and Jean-Luc Marion.

⁶ Alexei V. Nesteruk is a research lecturer in the department of mathematics at the University of Portsmouth (specifically a researcher in cosmology and quantum physics) as well as a visiting professor in theology and science (St. Andrew’s Biblical and Theological Institute in Moscow). He also serves as a deacon of Russian Orthodox Church (Ecumenical Patriarchate in Western Europe).

projects is to examine the possibility of a new synthesis of theology, philosophy and the sciences in order to ‚heal‘ the disintegrated ‚modern‘ mind. Although different in many respects, the main ‚holistic‘ approach of their projects show some remarkable similarities. *Chapter two* of our study thus aims to present the key aspects of Ellis´ and Murphy´s work and deals with the chosen key issues in dialogue with Alexei Nesteruk. This in turn provides the ground for a fruitful interaction and evaluative comparison of both approaches later in our study (mainly in *Conclusion*). Our discussion will be supplemented by comments of Michael Heller and some other scientists-theologians as the main argumentation unfolds.

Nesteruk´s recent, specific contribution to this dialogue – from the Eastern Orthodox perspective – is the main point of interest in our research. Correspondingly, *Chapter 4* constitutes the core of our study which eventually serves to introduce this important thinker to the wider public interested in the science-theology interface. Dialogue with Jürgen Moltmann, whose strong commitment to inter-ecumenical efforts (and certain inclinations towards Eastern Orthodox theology), should be seen as a useful prelude (*Chapter 3*) providing a general framework for our understanding and evaluation of Nesteruk´s approach from the Protestant perspective. Nesteruk, Moltmann, Ellis and many others employ scientific cosmology in their concepts of the dialogue and would all agree on the ‚incompleteness‘ of cosmology and thus would point out the need for unified and coherent worldview. Their quest for a ‚theory‘ of ultimate reality aims at drawing the picture of ‚the end‘, putting up front the

question of meaning of life and the purpose of God's creation: *the human life in the universe and its telos*. They search for a wider ‚platform‘ for interaction of theology and science and see the important role of ethics in theological interaction with science. The appeal to wisdom as the critique of modernity (or appropriation of it) could be seen as another vital aspect of their approaches.

It is an established fact, that cosmology, as a rapidly advancing scientific discipline was recognized as a challenge for theology (i.e., as its ‚proper counterpart‘ in questioning the meaning of life) and has been, already for several decades, engaged in dialogue with theology. But what exactly can be the benefit of this undertaking? Why should we, theologians, bother with cosmology? To answer those questions, the scientific status and the scope of cosmology should be elucidated. What can be explained by scientific cosmology alone? And what lies beyond its scope? To show the importance of this question, let us first consider Nesteruk's observation, when he is questioning the epistemological meaning and the sociological function of modern cosmology:

„It [cosmology] becomes an arena of theistic inferences and justifications of otherworldly transcendence when the results of its theories are brought into correlation with theological convictions. Contemporary cosmologists are often seen as exercising a certain priestly role in modern society as if cosmological ideas had an

immediate existential and social impact that would catch and fascinate public opinion.“⁷

Nesteruk sees cosmology as standing at the crossroads of the natural and human sciences. Although it is nowadays often seen purely as a natural science, he challenges this view by pointing out that the subject of cosmological research and its ‚object‘ are interconnected in a unique way; we cannot simply separate them. An important conclusion follows for our further explication of the dynamics of the theology-science dialogue, namely Nesteruk’s observation⁸, that cosmology involves two languages - that of physical *causality*, typical for the natural sciences and the language of *intentionality*, typical for the human sciences. Thus eventually, we face a need to explicate the value and ‚sense‘ of cosmological theories in our cross-disciplinary context. For Nesteruk the basic problem is related to un/knowability of the universe and its relation to ‚human knower‘ (including his history and self-understanding). This would be in line with our basic motivation, our searching for a unified worldview. It can give us the needed guidelines for our quest which can be summarized with the following thesis (based on Nesteruk’s research):

⁷ Nesteruk, *Cosmology at the Crossroads of the Natural and Human Sciences*, p. 2.

⁸ Nesteruk summarizes his argumentation as follows: „On the one hand the universe can be seen as a product of discursive reason, that is as an abstract ‚physical‘ entity unfolding in space and time. On the other hand the universe can be experienced through our participation in, or communion with the world understood as the natural context of living beings. This dichotomy between reason and experience, abstract construction and concrete participation, originates in the essence of human persons understood as unities of the corporeal and spiritual.“; *Ibid.*, p. 1.

The picture will always be incomplete unless we incorporate in it knowledge of what it means to exist as a human being. On the other hand, our understanding of human existence would also be incomplete if we do not address the ,natural setting‘ of human life, that is the universe. Thus, following Nesteruk who talks about ,cosmology and anthropology as two parts of the book of being‘⁹ we see cosmology as incomplete without anthropology and vice versa.¹⁰

Similarly Ellis, in his proposition of a comprehensive ,synthesis‘ of all sciences (including theology), points out that in most discussions between cosmology and theology, the internal limitations and major constraints emerge concerning the extent of cosmology’s explanatory power. Cosmology tries to give an account of ultimate reality which includes also the need to explain the emergence and the ultimate fate of intelligent life in the universe. The issue of the explanatory power of cosmology is severely tested (i.e., the epistemological difficulties emerge in a full force when the issue of human existence is thematized) and eventually its theories turn out to be a specific form of our striving to understand the meaning and purpose of human life in the universe. Here we need - together with Ellis - to appeal to the realm of ethics and the idea of telos – the questions of sense (meaning) and values in general.

⁹ Nesteruk, *The Sense of the Universe*, p. 87 (See more in the whole chapter on ,Humanity in the Universe‘, p. 87-117).

¹⁰ This main thesis is based on Nesteruk’s study ,Cosmology at the Crossroads of the Natural and Human Sciences: Is Demarcation Possible?‘.

All of the central explanatory problems are ultimately based on cosmology's peculiar subject matter, the universe as a whole (and specifically the 'uniqueness' of human consciousness, the existence of life in the cosmos). The obvious conclusion of Ellis, Nesteruk and many others is that physical cosmology cannot provide by itself a satisfactory explanation of the contingent facticity of the universe, or to put it theologically, the doctrine of creation, nor the sufficient justification for the needed account of a 'good life' (ethics). Here the contribution of Moltmann and his argumentation should be heard. Moltmann's lifelong interest in science led him to (re)formulate his theology in the light of scientific research. He develops an important conception of the 'ecological' theology of creation as well as the proposition of the concept of 'wisdom' as an interdisciplinary platform of science-theology dialogue (Chapter 3). Thus, advancing our theological view of science (or interaction of theology with the sciences) also leads us to inquire about the meaning of the concept of creation and about the place and function of natural theology in the 'whole body' of theology itself (Chapter 1 and Conclusion).

This entails our last point. We have seen that the 'boundary questions' in cosmology cannot be dealt with only by employing scientific or theological methods and their conceptual tools - they appear precisely because of the narrow confines of science and its methodology. It should be clear by now, that to address those meta-questions we need to appeal to philosophy. The same can be said about theology and its need to engage with and appropriate further those 'limit questions'. Acknowledging this need will lead us to address briefly the question of the

relationship between theology and philosophy. The issue of the philosophical ,background‘ of science as well as of theology, their respective traditions and their development will bring some light to deal with this problem.

Indeed, modern physical cosmology is raising questions which need to be answered. Let us face some of the limit questions again: Where do the regularities we observe in our world come from? Why there is *the universe* – our *cosmos* - after all? Why is there something and not nothing? Those questions can be easily dismissed as non-scientific by nature. But their ,acute presence‘ in cosmological research - the problems of contingency of cosmological structures and laws and eventually the fortuity of our place in the universe calls for explanation. Science, aware of those metaphysical issues, can acknowledge them, ignore them or take them for granted – nevertheless the foundations on which science rests cannot be the subject of purely scientific investigation. Recognizing the need to keep those questions in our field of vision (especially the question ,why?‘ is central for our research) we embark on the quest to explicate the further layers of metaphysical nature.

This extension of scientific cosmology towards the higher issues including the purpose and meaning of human life will lead us eventually to ask: Which metaphysical theories are (best) ,compatible‘ with the physical world as we know it? And how should the contemporary scientific cosmology be appropriated metaphysically? With that in mind we can conclude and point out the importance of our project, whose aim is to present human life in the context of contemporary scientific view of

nature and relate it to its transcendent ground. Thus, the final chapter (*Conclusion*) tries to bring to ‚evaluative completion‘ all of those issues mentioned above. Aware of the fact that our research is necessarily selective and provisional, we want to express our hope that by raising such questions we are pointing to the ‚right direction‘ in our search for the fullness of truth.¹¹

¹¹ The importance of the dialogue of theology and science in general and of our small contribution to it in particular, can be pointedly expressed by a quote from Holmes III Rolston’s book *Science and Religion*: „*The interface between science and religion is, in a certain sense, a no-man’s land. No specialized science is competent here, nor does classical theology or academic philosophy really own this territory. This is an interdisciplinary zone where inquirers come from many fields. But this is a land where we increasingly must live. (...) The religion that is married to science today will be a widow tomorrow. (...) But the religion that is divorced from science today will leave no offspring tomorrow.*“, p. VIII-IX.

1. Philosophy, Theology and Science

1.1. Philosophy in Science and Theology: The Case of Michael Heller

Theology and science in dialogue. This phrase refers to one of the current trends in theology - especially in Anglo-American provenience - which is experiencing growth and increasing interest internationally and inter-ecumenically. The lifelong efforts of Michael Heller¹² bear witness to the importance of this enterprise. His merits in the field of the dialogue are widely recognized not only in Europe but globally. Heller's specific approach to the scientific, philosophical and theological

¹² *Michael (Michał) Heller* (1936) is a significant Polish interdisciplinary scholar: cosmologist, philosopher and theologian; a professor of philosophy at the Pontifical University of John Paul II in Kraków, Poland. As a cosmologist, Michael Heller is mainly interested in general relativity (the problematics of singularity) and his current research is concerned with the search for the 'final theory', the unification of general relativity and quantum mechanics. He writes extensively on mathematics as the language of science but also about the 'human face' of science (i.e., treating the issues of freedom, human creativity and, ultimately, the problem of 'truth' and 'transcendence' in science). He is also a member of the Vatican Observatory and a lecturer in the philosophy of science and logic in Tarnów, Poland. Since the ordination in 1959 he is also a Roman Catholic priest. Michael Heller is the founder of a research institute named after the great Polish astronomer, philosopher and theologian Nicolas Copernicus (Mikołaj Kopernik) - the Copernicus Center whose main aim is the research, education and popularization of science and theology (and ultimately, the 'reconciliation' of science and theology in the public 'collective consciousness'). His life long effort in this interdisciplinary field of research was crowned with the Templeton Prize in 2008. In our study we refer mainly to the following works of Michael Heller: *Philosophy in Science* (and his 'wider' philosophical monograph *Filozofia i wszechświat*), *Ultimate Explanations of the Universe*, and *The Sense of Life and the Sense of the Universe*.

investigation of the ‚big‘ or the ‚limit questions‘ could be best summarized by his own words:

„Science is but a collective effort of the Human mind to read the Mind of God from question marks out of which we and the world around us seem to be made. To place ourselves in this double entanglement is to experience that we are a part of the great Mystery. Another name to this Mystery is a humble approach to reality (...) The true humility does not consist in pretending that we are feeble and insignificant, but in the audacious acknowledgement that we are an essential part of the Greatest Mystery of all – of the entanglement of the Human Mind with the Mind of God.“¹³

Together with Heller we should first ask what is understood by the interaction of theology and science – the basic clarification of the terms is necessary. Michael Heller starts with an important observation: *to understand theology and science and to talk about their relationship, there is a need for a mediator.* At the outset he stresses the very important ‚reality‘ (often neglected), namely, the fact that both theology and science are rooted in philosophy. Heller wants to treat both of them as different ‚traditions of thought‘ and trace their historical development. He points out that sciences grew mainly from Platonic (and Archimedean) traditions, whereas theology was (besides Platonic and Neo-Platonic ‚beginnings‘) heavily dependent on the Aristotelian (Thomistic) metaphysics before its fragmentation since the time of the Renaissance. Heller talks

¹³ www.templetonprize.org/downloads.html#Heller, 23.1.2016.

about the ‚philosophical setting‘ (or philosophical ‚envelope‘) of all scientific theories as well as all theological systems.¹⁴ This ‚historical‘ treatment of particular theological and scientific traditions can explain the episodic tensions between the different ‚modes of thought‘, their mutual interaction (e.g. conceptual ‚cross-influences‘) as well as provide some tools for the potential mediation among the respective traditions. It is necessary to move to a certain meta-level if we want to get any further in our research - the philosophical reflection upon science and theology is needed. Thus, *the key role of a ‚mediator‘ belongs to philosophy.*

In the case of science he proposes the *return to philosophy of nature* (which was dismissed by positivism and neo-positivism, as ‚nonsensical‘, from the realm of any sensible research) from which the modern natural sciences emerged as autonomous ‚fields of research‘. Heller is well aware of the fact that the traditional topics of the philosophy of nature (e.g. space, time, causality, the structure of the universe) are still overwhelmingly present in our modern scientific theories. What would the new ‚philosophy of nature‘ look like? At this point we need to refer to the specific method of Kraków school (mentioned above), which is best expressed by the phrase ‚philosophy *in science*‘.¹⁵

¹⁴ Heller M., *The Sense of Life and the Sense of the Universe*, p. 15-16.

¹⁵ „Michael Heller (2011) suggests that the ‚philosophy in science‘ research program should concentrate on the following, interrelated problems: (1) the influence of philosophical ideas on the development and evolution of scientific theories; (2) the traditional philosophical problems intertwined with empirical theories (e.g., time, space, consciousness, so on) and (3) the philosophical reflection over the assumptions of the scientific method (e.g., the

Heller recalls the very practical beginnings of the specific approach to the dialogue. ‚Philosophy in science‘ as the specific trait of Kraków school stemmed from the practical life and was associated with the ‚phenomenon‘ of philosophizing physicists. ‚Philosophy in science‘ does not replace the ‚philosophy of science‘. As a very important element ‚philosophy of science‘ is included in it. Nevertheless, the term is used simply to indicate that ‚philosophy in science‘ was practiced since the very beginning of empirical science itself and to stress the fact of its philosophical origin.¹⁶

Heller also points out the fact that many scientific fields of research are employed in wide range of discussion which also frequently touch the religious (theological) problems. This signifies a telling demand in society for certain quasi-religious (or para-scientific) explanations of the world which is studied by science. Hence, it is not irrelevant to ask for some guidelines how to ‚philosophize on the world‘. In that respect, the results of the sciences should be properly interpreted so that their findings could correspond to the particular setting, be it the ‚worldview discussion‘ or the issues of religion and theology. For Heller, the

assumption of the mathematical character of the universe ... idealizability of nature ...). To these, one might add other issues which constitute the ‚philosophy in science‘ field of reflection: (4) science as philosophy (e.g., the fact that the physical theories may be treated as the best ontologies we have); and (5) migration of concepts.“; Brożek B. and Heller M., Science and Religion in the Kraków School, in: *Zygon*, vol. 50, no.1 (March 2015), p. 196; The reference is made to Heller’s *Philosophy in Science* (2011).

¹⁶ As an example, Heller refers to Isaac Newton and asks whether his writings should still be seen as science in philosophy (before its emancipation from philosophy), or, on the contrary, we encounter in his approach one of the first examples of philosophy in science.; Heller M., *Filozofia i Wszechświat*; part 1 (chapter 1).

core issue of philosophical reflection in science (and theology) is the problem of *rationality* and the *world's intelligibility*.¹⁷ This issue becomes most ‚tangible‘ in the field of scientific cosmology where all the related ‚limit questions‘ can easily ‚come to the surface‘ (e.g., the problem of infinity, the initial singularity and its theological implications).

This brings us to the realm of theology and its philosophical background. Heller repeatedly reminds us that the basic theological ‚terms‘ and ‚issues‘ – e.g. *God, person, eternity* – are philosophical concepts. Whatever is the attitude to (and understanding of) the role of philosophy in the ‚life of faith‘, it seems obvious that it is impossible to remove from theology the basic philosophical language. Heller asks about the criteria for a philosophical system whose ‚tools‘ can be most appropriate for the purposes of theology. Being aware of the changes after the Second Vatican Council he simply invites theologians to be open, think critically and take use of the conceptual tools of the widely expanding field of philosophy of science in their interaction with scientific theories. Practically, according to Heller, and in the same manner as was the case of scientific theories, theology

¹⁷ Similarly J. Wentzel van Huysteen, in his search for the *postfoundational* epistemology, claims that the issue of human *rationality* should be the most important ‚problem‘ of the dialogue - the key link in the ongoing interdisciplinary debate about the nature and status of theological knowledge - capable to bridge the gap between scientific and theological reasoning: „The theologian can never separate his or her science from his or her theology, but she or he should learn to distrust the epistemological short cuts from one discipline to the other. One way to do this would be to find a conceptual framework that would yield a broader, more flexible notion of human rationality.“; Van Huysteen, Gregersen; Rethinking Theology and Science, p. 17ff.

should strive to reinterpret some of its ‚truths‘ in the light of the current (philosophical) ‚worldview‘. For theology it means also to interact with the ‚world of science‘ and its theories and try to bring into language the new formulations of traditional theological doctrines. Ignoring the role of science in society and in the life of modern (post-modern) man is ‚impossible‘. Heller argues, that the new interpretations of the basic theological concepts (in the light of science) can also serve the practical, even pastoral purposes, providing some basic ‚orientation in life‘ for Christians living in a ‚scientific age‘.

As an active scientist (i.e., a mathematician and cosmologist) and a philosopher, M. Heller is mainly interested in the philosophical aspects and implications of modern physical cosmology. Together with G. Ellis, he is one of the major contributors to the relatively new discipline – philosophy of cosmology¹⁸ – which constitutes an important part of the ongoing dialogue of science and theology. The fundamental problem of this new branch of philosophy is to answer what is the relationship of scientific (especially cosmological) theories to the (ultimate) reality. Being (in a sense) a ‚theory of all things‘ it is inevitable for cosmology to consider seriously the wide array of philosophical questions. Employing some of Heller’s assertions, the rest of this chapter aims to provide the basic conceptual framework necessary for us to explicate the chosen teleological

¹⁸ See more in: Heller M., *Filozofia kosmologii*; Ellis G, *On the Philosophy of Cosmology*, and *Issues in the Philosophy of Cosmology*.

and anthropological aspects of scientific cosmology and its philosophical and theological appropriation.

The key anthropological aspect examined in our study is the issue of human rationality - the full array of problems related to the ,human knower' embodied in the universe. Furthermore, the ,end/s' of human knowledge become/s the vital perspective of our research. Thus, by tracing the key anthropological and teleological aspects we are asking not only ,Who is man?' but also ,Why there is man in the universe?' as the conscious, inquiring human being ,embedded' in the vastness of the space-time of our cosmos. Our deliberations about ,telos' of human life and the universe carry various connotations, be it its ,end' and ,completion', its ,purpose' or ,sense' and ,meaning'. Generally, the emphasis is laid more on the ,formal purposiveness' pertaining to human knowledge and its ,completion', not so much on teleology in the ,classical' understanding of the ,end' of the physical universe and its evolution. The invoked ,completion', ,fullness' and ,coherence' are the expressions of the ultimate underlying (or ,hidden') question which is guiding our research, namely, the understanding and ,articulation' of the sense (meaning) of our existence in the universe (or even more, to understand what does it mean to search for the sense of life).

At this point, there is a need to define more precisely how the words ,sense' and ,meaning' are employed in our study. We follow Michal Heller who argues that although these terms are closely related, there exists a crucial difference between them. Concept of ,meaning' is related predominantly to the linguistic expressions, whereas ,sense' can also be related to extra-

linguistic ‚objects‘. He points out that even before the difficult task of defining those terms is done, the latent (or even acute) presence of this question in the whole history of philosophy as well as in daily life of ‚ordinary people‘ shows that there is some basic ‚preconceptual understanding‘ of what is at stake whenever this question is posed. He refers to St. Augustine (his ‚understanding‘ of the nature of time), who would know what ‚sense‘ or ‚meaning‘ is until somebody asks him for a clear definition. Furthermore, phenomenology is the main context within which our employment of the term ‚sense‘ (but also of ‚meaning‘, which we treat somewhat deliberately as a synonym for ‚sense‘) should be understood, that is, in a rather ‚pre-linguistic‘ manner. Once again, the reference to Heller’s conclusions helps to illuminate further the ‚meaning‘ (or ‚sense‘) of our key terms:

„Firstly, sense is understood as something which is given by a subject to an object or a process: sense is always sense for someone (...) the dominant factor in the ‚sense‘ of the whole process is the goal we pursue. Secondly, such an understanding of sense is connected with values; it is a certain type of a value and this value contains within itself a certain epistemological aspect (...) Sense entails – at least implicate – a certain dose of understanding or at least a desire to understand.“¹⁹

However, this is a minimalist definition, Heller argues, and thus it is insufficient in our quest for the sense of life. In the

¹⁹ Heller, *The Sense of Life and the Sense of the Universe*, p. 146; 156-157.

case of Husserl's phenomenology, the sense of anything is determined by a human subject, everything is dependent on intentionality of man. In our deliberations about the relationship of philosophy, science and theology, nevertheless, the 'other' perspective is needed. The encounter with the 'mystery of the universe' and the 'mystery of God' is the new perspective which, as we will see in our discussion with Nesteruk and Moltmann, can provide the full and even 'therapeutic' function in our quest for the sense of life. This would inevitably lead us to inquire about the 'status' of knowledge in theology and science (i.e., the epistemic status of scientific claims about the universe). The hoped for result is the 'unfolding' of the unified worldview capable of incorporating both theological and scientific perspectives. There is a need to search for a more comprehensive account of the nature of human knowledge which would be able to relate the specifics of theology (i.e., its claim that 'revelation' is the ground for all theological knowledge) and ethics to the current strictly 'scientific' modes of knowledge.

The approach of Michael Heller to the issue of theology and science in their dialogue can be best summarized by the words of W. Macek: Adherence to rationality, in Heller's view, is a human decision - simply, our choice. Since rationality is a value, we can talk here about a moral choice. „*Rationality then becomes morality of thinking. Naturally he is convinced that faith*

*should not be in separation from science. For Heller science as a whole is a locus theologicus.*²⁰

Heller refers to A.N. Whitehead (and the subsequent school of ‚process philosophy/theology‘) whose intention was to seek the harmony between theological and scientific reasoning which could ‚be effected by integrating them into a philosophical worldview.‘ It is mainly the ‚vision‘ of the process philosophy/theology which is important for Heller’s argumentation. Whitehead (and his followers, e.g. D.R.Griffin) claim that the ‚conflict‘ between science and theology is not necessary and they call for a careful evaluation of the ‚attitudes‘ of science and theology, which bring about the tension between them.²¹

The role of philosophers, according to Whitehead, is to become the *critics of abstractions*, which abound among theologians as well as scientists, correcting the exaggerations of both by incorporating them into the wider framework, the ‚all-embracing worldview‘, which cannot be provided solely by science nor by theology.²²

²⁰ Macek W., *Theology of Science according to Father Michał Heller*, p. 3-4.

²¹ Griffin explains the roots of the apparent conflict employing the following twofold equation: [T]he equation of religion with supernaturalism and the equation of science, since about the middle of nineteenth century, with a materialistic version of scientific naturalism.“; Griffin, *Religion and Scientific Naturalism*, p. xv.

²² Whitehead claims: „[T]he needed modifications on both sides could only be achieved by means of philosophy, with ‚philosophy‘ understood primarily as *metaphysical cosmology*, the attempt to create an *all inclusive worldview* in which *scientific facts* and inescapable *religious intuitions* can be *harmonized*.“; *Ibid.*, p. 9 [emphasis RL].

Following Heller, whose ‚method‘ (and ‚advice‘ for theologians) is to ‚intuit‘ and ‚trace‘ the key philosophical issues in the study of scientific cosmology (e.g., to subject the presuppositions of science to the careful philosophical examination), the following sections focus on some basic problems of scientific cosmology, philosophy and fundamental theology in their common search for the points of intersection of the various modes of human inquiry about the nature, place and the role of humanity in the universe.

1.2. Scientific Cosmology and Natural Theology

Scientific cosmology is a peculiar science. Helge Kragh, a Danish historian of science, argues that it is not only because of its unique subject matter, but also because of history of its development.²³ He calls for a careful differentiation between the various connotations of the term ‚cosmology‘. Due to the efforts of some significant philosophizing cosmologists to popularize the findings of scientific cosmology (and provide their expanded

²³ „It is, paradoxically, one of the oldest and one of the youngest of the sciences - and yet the paradox is easily solved when it is realized that it simply stems from different meanings of the term ‚cosmology‘ used at different times. There is, roughly speaking, two kinds of cosmology, of which one is the attempt to make sense of the world at the largest possible scale, and the other is the more limited study of the astronomical environment of the earth, meaning anything from the planets to quasars. The first kind necessarily relies on philosophical reasoning and invites speculation, whereas the other relies on observation and invites mathematical model-making. It is in the first sense that one can claim cosmology to be perhaps the oldest of humankind's proto-scientific activities, for speculations about the structure, creation and meaning of the world are to be found as long back in time as one can trace intellectual history.“; Kragh H., *On the History and Philosophy of the Twentieth-Century Cosmology*, p. 1.

speculative interpretations of those findings) the terms instantaneously conveys the meaning of the society's worldview. It is justifiable since the current understanding of (scientific) cosmology is rather a modern invention which could be (conditionally) treated as a 'deviation' from its classical 'philosophical' meaning - for most of human history, it was a branch of metaphysics and religion (or, at least as a part of astronomy which used to be closely related to philosophy and religion). Since the aim of our study is to consider the theological appropriation of scientific cosmology (and thus understanding cosmology in the wider, 'pre-modern' sense of the world), it is necessary to clarify the meaning of scientific, physical cosmology, whose findings, the scientific 'facts', provide the needed 'material' for our deliberations.

Physical cosmology aims to understand the nature of the universe in the scientific terms and concentrates on the study of the largest-scale structures and dynamics of the universe. Its speculations are concerned with fundamental questions about the origin, structure, evolution, and the ultimate fate of our universe. Developments towards 'cosmology as a science' are traceable back to Copernicus and the subsequent 'Copernican principle' (i.e., the assertion that celestial bodies are governed by the identical physical laws as those on Earth). Another milestone was the Newtonian mechanics, which first provided a clear understanding of those physical laws operating in the universe. Because of this development the emancipation of cosmology from the realm of philosophy of nature was inevitable. The origins of our current understanding of physical cosmology

could be found if we refer to Albert Einstein's general theory of relativity and the following major observational discoveries confirming the intuition about the vastness of the universe and especially its dynamic character (Edwin Hubble's 'expanding universe') and Max Planck's quantum mechanics. Einstein's 'relativity' and Planck's quantum mechanics constitute the two pillars on which the current physical cosmology rests. The present-day popularizers of physical cosmology also suggest that one of the main goals of cosmology is the quest for the 'theory of everything' which would be able - in one single and elegant equation - to describe 'all that exists'.²⁴ Kragh concurs but once again calls for qualification of what is meant by the 'theory of everything'.²⁵

This peculiar character of cosmology, as it is often argued, provides the invitation for theology to join the common quest for the ultimate picture of reality. Although there are some scholars, including Helge Kragh²⁶, who are more cautious about the role of theology in its interaction with scientific cosmology, it seems reasonable to argue for the mutual benefit of such an enterprise, if the terms are carefully defined and the different connotations

²⁴ See more in: Barrow, *Theories of Everything. The Quest for Ultimate Explanation* (1991) and *New Theories of Everything* (2008).

²⁵ „To get a reasonable picture of what cosmology is about, we should add that although, in principle, its domain has no limitations in space and time, in practice cosmology deals only with the large-scale features of the universe, typically of galactic or extra-galactic magnitude: atoms, butterflies, and mountains are all parts of the universe, but they are of no interest to the cosmologist.“; Kragh H., *On the History and Philosophy of the Twentieth-Century Cosmology*, p. 1f.

²⁶ Kragh H., *Scientific Cosmology and Theology*, p. 4.

of the term 'cosmology' are understood. It is beyond the scope of our study to provide a satisfactory account of the historical development of cosmology, but there is a vast amount of scientific and scholarly literature which could supply the needed insight into the character of cosmology, its history and mutual interactions with the realm of theology.²⁷

There is also a growing number of scientists and theologians who employ physical cosmology to make theological claims. It seems that natural theology (as an attempt to reach – by rational reflection – some understanding of God and his relationship with the universe) is flourishing within scientific community since the second half of the twentieth century. Together with David Wilkinson²⁸ we can ask how the new revived interest in natural theology today (among philosophising cosmologists) should be evaluated. Viewed against the trend of much of the nineteenth and twentieth

²⁷ The following studies of Helge Kragh provide the complex historical picture of the development of cosmology and its interactions with theology: 1. *Matter and Spirit in the Universe. Scientific and Religious Preludes to Modern Cosmology*; 2. *Conceptions of Cosmos From Myth to the Accelerating Universe: A History of Cosmology*; 3. *Higher Speculations. Grand Theories and Failed Revolutions in Physics and Cosmology*. See also the comprehensive study of N.S. Hetherington: *Cosmology. Historical, Literary, Philosophical, Religious, and Scientific Perspectives*. R.J. Russell also provides a complex picture of current state of the dialogue of theology and science listing the main scientific and philosophical issues of scientific cosmology in his *Cosmology from Alpha to Omega. The Creative Mutual Interaction of Theology and Science*. Similarly Clayton P., *God and Contemporary Science* (especially Part II. dealing with the question 'what theologians can and cannot learn from scientific cosmology'); van Huysteen J.W., *Duet of Duel* (part 2: Religion and Cosmology); and George Ellis: *Before the Beginning: Cosmology Explained*.

²⁸ D.A. Wilkinson in his article 'The Revival of Natural Theology in Contemporary Cosmology' describes this development and raises critical questions analysing the limitations and potential dangers of it.

centuries when natural theology was undergoing severe philosophical (by the ‚heirs‘ of Hume and Kant) and theological criticism (Barth), the current development may look surprising. The modern scientific cosmology as an interdisciplinary enterprise addresses a variety of unresolved fundamental problems concerning the nature, structure, origin as well as the end of the universe. Because of this character of cosmology and some daring attempts of cosmologists to resolve those perennial issues there is a chance to find a ‚common ground‘ between cosmology and theology. It is often not easy to draw a demarcation line between strictly scientific analysis and metaphysical reflection in cosmology, thus the ongoing dialogue of these disciplines is needed and it seems to be a promising undertaking.²⁹

As mentioned above, ‚popularized‘ scientific cosmology with its metaphysical implications has (or could have) a significant impact on cultural life, on the forming of society’s worldview. We cannot provide a satisfactory overview of the recent (important) cosmological works raising the questions of natural theology, yet we would like to refer to a few influential ‚philosophizing scientists‘, especially those whose studies are concerned primarily with the anthropological and teleological aspects

²⁹ „As intellectual disciplines, theology and cosmology are both essentially interdisciplinary in nature, and as such they both share in a mutual quest for a comprehensive knowledge of the origin, meaning and destiny of our universe. For this reason William Stoeger has rightly argued that some of the principal features of cosmology, its assumptions and conclusions, set the stage, as it were, for a critical, interdisciplinary conversation with philosophy and theology (cf. 1988: 219).“; in: van Huysteen, Duet of Duel, p. 47-48.

traced in our study (or frequently quoted in the works of the main participants in our discourse).³⁰ All of them are strongly preoccupied with the questions of ultimate reality, questions of meaning and the 'position of man in the universe'. In our study we would like to join some of them and try to 'think together' cosmology and theology. But how are we to relate such disparate areas of knowledge? Where could we find the needed prospects for a mutual benefit of such an undertaking? The aim of the following paragraphs is to examine – though in a very limited extent - the chosen key concepts which can provide the needed ground for the fruitful dialogue in its search for a more 'coherent' account of reality.

1.3. The Notion of 'Nature'

To address the relationship of theology and cosmology (or natural sciences in general) it is necessary – as the first step - to examine the notion of *nature* (*Physis, natura*).³¹ It is of

³⁰ Let us mention Paul Davies (The Mind of God and The Last Three Minutes); John Polkinghorne (The God of Hope and the End of the World and The End of the World and the Ends of God: Science and Theology on Eschatology (co-edited with Michael Welker) and David Wilkinson (Christian Eschatology and the Physical Universe). From the group of scientists who were well aware of this fact and make use of it in their careers (as popularizers of science as well as of their own ideas) we should name the legendary Carl Sagan (his bestseller Cosmos, his Gifford Lectures The Varieties of Scientific Experience: A Personal View of the Search of God and Pale Blue Dot: A vision of the Human Future in Space) and Brian Cox (Human Universe) - the present-day active promoter of science with strong philosophical inclinations.

³¹ The word *nature*, which is derived from the Latin word *natura* in its 'basic' use refers to the external world of material things, but also to their 'essential qualities, innate disposition' (earlier literal meaning related to the word 'birth'). *Natura* is a Latin translation of the Greek word (*physis, φύσις*), which originally referred to the intrinsic characteristics of things and

considerable importance in our context, since the proper understanding of the concept of nature is foundational for us to comprehend further the meaning of the notion of ‚natural theology‘, ‚natural law‘ and the ‚nature‘ of theology itself. If we inquire into the early uses of the term we find *physis* as the general subject matter of philosophy (Plato and Aristotle call the early philosophers *physikoi*). In the works of Aristotle the term *physis* came close to (and took some functions of) platonic *psyche* – it is spiritual (like *psyche*) because it is primarily *form* and it works toward an *end* (telos).³²

For our further discussion with Nesteruk it is also important to mention the later interpretation of the term: „*In its immanent, active role physis is logos (...)* and on the level of the individual existent, the logoi spermatikoi. It is a *moral principle*, in that the purpose of man was to live ‚harmoniously with nature‘.“³³ Alister McGrath also points out the *ambivalence* of the notion of nature. On the one hand it could refer to something ‚untouched‘ by human activity (as set over against ‚culture‘), but at times it was also used to describe what was mastered by humans, the world which was transformed by human physical and intellectual enterprise. In that latter case nature can be contrasted with culture (and/or technology). McGrath pays closer attention to

other features of the surrounding world (corresponding to the Greek term *kosmos*); Peters, *Greek Philosophical Terms*, p. 158-160.

³² In both Plato’s and Aristotle’s philosophy it referred to different, but inter-connected issues, which can be listed as follows: „(1) the growth process or genesis; (2) the physical stuff out of which things were made, the arche (...) and (3) a kind of internal organizational principle, the structure of things.“; *Ibid.*, p. 158.

³³ *Ibid.*, p. 159.

the notion of ‚nature‘ (and specifically to history of its development) and lists three basic different senses in which we could understand and use this term: (1) the physical, (2) the metaphysical (human), and (3) the ‚ecological‘ sense of the word ‚nature‘.³⁴ The important thing to realize is that the concept of ‚nature‘ was shaped by social concerns and ideological agendas of different groups (it is a socially conditioned/mediated notion) and shows the noticeable plasticity, variability and instability.

Thus it can not be taken as an objective entity. McGrath stresses the fact that it is necessary to develop an ontology of nature if we want to use the category of ‚nature‘ legitimately. He proposes that the Christian doctrine of creation can provide a viable foundation to the notion of ‚nature‘. Referring to Clement of Alexandria and his followers he mentions *correlatedness of the concept of ‚nature‘, a Christian doctrine of creation and a doctrine of incarnation*: „the logos which determines the ‚nature‘ of an entity is clearly understood to be grounded in the divine logos incarnate in Christ“.³⁵

³⁴ McGrath A., *A Scientific Theology* (vol. 1), p. 82: McGrath lists those three ‚uses‘ of the notion of ‚nature‘: „1. Used as realist concept, ‚nature‘ refers to the structures, processes and causal powers that are constantly operative within the physical world, and are studied by the natural sciences. 2. Used as a metaphysical concept, ‚nature‘ denotes a category which allows humanity to posit its distinctive nature and identity in relation to the non-human. 3. Used as the surface concept, the term refers to ordinarily observable features of the world. This is perhaps the most widely used sense of the term in modern ecological discourse, in which a contrast is often drawn between nature and an urban or industrial environment, often to highlight how nature has been violated, and thus to emphasize the need for conservation and preservation of the habitats that remain.“

³⁵ *Ibid.*, p. 98.

In our effort to establish the ‚view of nature‘ in our discussion with modern natural sciences, we need to start with understanding of ‚nature‘ as the physical foundation of physical cosmology (i.e., cosmology in a narrower sense than is the perspective of our study). Cosmology could be, in simple terms, described as the branch of science studying matter, natural laws in operation therein and thus the fundamental structures of the universe. The ‚basic layer‘ of our understanding of cosmology is our view of nature in the ‚physical sense‘. As the physical foundation the term ‚nature‘ refers to matter and the fundamental laws that determine its character and behaviour – the *causal laws* of nature, which are in operation on both the micro- as well as the macro-levels of the physical world, describing the hierarchical structuring of nature and its (sub)systems.

The causal laws are ‚described‘, or rather modelled, by employing mathematics as an indispensable tool in studying nature. In that context we will need to extend our research towards metaphysics so that we are able to address the meaning of mathematization of nature - the concept of nature as a whole, the physical universe, is one of the possible extensions of the original notion (we arrive at it by applying the mathematical methods of extrapolation). Mathematization (or rather the geometrization) of nature was the basic approach (and achievement) of the scientific revolution of the seventeenth century. The scientific age brought some major changes in understanding of the concept of nature – quantification,

machanization and secularization (or the autonomy of nature) as the basic features of the new approach.

As McGrath reminds us, this gives rise to a modern worldview, the specific ,Cosmology (in a broader sense) characterized by the split between the objective realm of the natural order (e.g., a mechanistic, deterministic Newtonian cosmology) and the subjective world of detached observers and their values. The modern approach to (defining) nature is viewed as the manifestation of the will to power in result of which the physical nature is being exploited by humans and ecological crisis threatening the human life itself is brought about.³⁶ This dualistic understanding has been criticised for several decades (Ellis´ and Murphy´ s treatment of the problem will be discussed later) and one of the dominant trends of our time is a postmodern aim to deconstruct nature in order to show the historical dimension of any scientific activity and to establish *nature as historical*. This historical dimension reveals the fact that - because of the world of observers (and their assumptions) - nature is always already an interpreted, or more precisely, a constructed category.

Focusing on the fact of the presence of the human intelligent life in the universe, the human nature also needs to be explicated. This could be done if the key concept of theological anthropology is employed, namely, creation of man as the imago

³⁶ Ibid., p. 121-133.

Dei.³⁷ Explication of personhood as the image of God in the context of the dialogue of theology and science is the key feature of Nesteruk's research. He focuses on different aspects of this problem, e.g., the issue of the observer's perception, intellection and interpretation, which are crucial for him as he combines the postmodern 'deconstruction' of the natural sciences with some premodern theological assumptions in his research. Both Ellis and Nesteruk aim to show the unity of the world in which the physical nature and the world of human persons form a coherent whole. What was clearly stated by all the proponents of the dialogue above was the call for a 'new' ontology of nature. Are there any hints which would propel us to search for and potentially choose an attitude which would allow us to see the world as 'sacred' reality? The question 'what the world is' alarms the human mind and the 'knower' is challenged to inquire whether to submit himself fully to the external 'constraints of reality' or alternatively, could the 'internal choosing' of the active, free, volitional disposition of human subjectivity influence significantly our understanding of the world?

³⁷ Philip Clayton provides the basic description of humanity which bears and reflects the divine nature and points out the following features: 'humanity's moral nature, its rationality, self-consciousness, responsibility to others and to the earth – and its freedom (...) *that most succinctly expresses that unique state of being which is being a person in the image of God.*'; Clayton, *God and Contemporary Science*, p. 37.

1.4. Naturalism, Natural Sciences and Theology

The notion of ‚nature‘ plays a critically important role for philosophers and scientists inclined towards ‚strictly‘ *naturalistic* reasoning.³⁸ Clear understanding of their position is also crucial for all the subsequent interactions of theology with ‚the world of science‘. D.R. Griffin formulates the problems which has to be detected and articulated clearly before any ‚dialogue‘ of science and theology occurs.³⁹

Naturalism (i.e., the *methodological* naturalism of science) could be defined as rejecting the view that there exists (or could exist) anything which lies beyond the scope of scientific explanation. Naturalists argue that there is no higher tribunal for truth than natural science and that there is no better method than that of science for evaluating the scientific claims, and thus there is no need nor any place for a ‚first philosophy‘ - metaphysics or epistemology - that could assist in justifying science and its method. Nothing, they argue, lies beyond the scope of scientific explanation. This argumentation leads them to systematic exclusion of metaphysics from philosophical and ethical reflection. Despite the fact that the term ‚nature‘ is quite elusive and naturalists themselves are far from reaching

³⁸ Robert Audi provides a comprehensive introduction to the complex issue of naturalism: Audi, *Naturalism as a Philosophical and Scientific Framework*, pp. 13-39.

³⁹ „Today, the discussion of the apparent conflicts between science and theology has increasingly been stated in terms of the issue of ‚scientific naturalism‘. Science, it is widely agreed in scientific, philosophical, and liberal religious circles, necessarily presupposes naturalism (...) Most philosophers, theologians, and scientists, however, believe that scientific naturalism is incompatible with any significantly religious view of reality.“; Griffin, *Religion and Scientific Naturalism*, p. 11.

consensus in providing the precise interpretation of their key concept, we can provide a simple definition of ‚nature‘ in the context of our discussion with naturalism: „*Nature is what the empirical methods of the natural sciences disclose it to be, and nothing more.*“⁴⁰ Naturalists, as the definition implies, exclude any notion of the supernatural or the transcendent. Some of them ‚limit‘ the nature of reality to something which can be experienced and interpreted directly, whereas others insist on the ‚mediating role‘ of scientific methods (acknowledging the ‚ontological commitments‘ as the ‚foundations‘ of any method). Thus they see reality as ‚that whole‘, which is known through those methods (only).

Nevertheless, we have to point out that naturalism occurs in many different versions. What was described in the previous paragraph could be called the *hard naturalism*.⁴¹ It is necessary to differentiate and be aware of the fact that there are some to whom naturalism is not a dogmatic belief that the modern view of science is entirely sufficient and that the findings of science provide the ultimate picture. For some it is simply a conviction that science is the best way to explore the processes of the

⁴⁰ McGrath, *A Scientific Theology* (vol. 1), p. 126.

⁴¹ Holmes Rolston III defines it as follows: „*Nature is its own eternal necessary and sufficient cause. Determinism is true, at least statistico-determinism (...) Nature is fundamentally non-personal; humans are epiphenomenal. Mind has evolved from matter, but is nevertheless eccentric to it. Nature is essentially value-neutral. Human values are real, yet nothing more than human values, our own creations. They neither have nor need any explanation outside themselves by grounding in natural or sacred values. The scientific method is the only route to truth; every other supposed method is myth and emotion.*“; Rolston III, *Philosophy, Theology and the Sciences*, p. 10-11. See also: Rolston, *Science and Religion*, pp. 247-252.

universe and that those processes are what modern science is concerned about in its quest for understanding. Thus we can also talk about the *soft naturalism*.⁴²

The first view would exclude theology altogether as an illegitimate ‚mode‘ of human enquiry. The second one is supposedly open to religious enquiry but still leaves us with an open question concerning the ‚epistemological‘ status of theology and the place of theology among other sciences - the position of theology at academia.

The hope to solve the problem of the proper relationship of science and theology thus lies in clear understanding of what is meant by the idea of ‚scientific naturalism‘. D.R.Griffin differentiates between the *minimal* and the *maximal* sense of this word, whereas the special emphasis should be laid on temperance in our attitude to the issue at stake.⁴³ In our quest for harmony between science and theology, Griffin suggest, the first step would be to state clearly, that *science requires only naturalism in the minimal sense*. The second step – this time the

⁴² Rolston characterizes the ‚softer‘ version of naturalism it this way: „*Nature contains within itself a creative, transformative principle, producing emergent novelty. This results in freedom and directedness increasingly in the higher evolutionary forms. Nature is simple and non-personal across great ranges, but locally and at complex levels becomes personalized. Persons in their cultures stand in essential continuity with nature. Both the physical and the psychical dimensions of nature are keys to its understanding (...) The scientific method can teach us much but not all about nature. Philosophical and religious judgments are required positively to evaluate its meanings.*“; *Ibid.*, p. 11. See also: Rolston, *Science and Religion*, pp. 253-257.

⁴³ Griffin, *Religion and Scientific Naturalism*, p. 11; „In the minimal sense, scientific naturalism is simply a rejection of supernatural interventions in the world, meaning the interventions that interrupt the world’s most fundamental pattern of causal relations. Understood maximally, by contrast, scientific naturalism is equated with sensationism, atheism, materialism, determinism, and reductionism.“

challenge for theology – would be to *revise and re-fashion its presuppositions concerning God's action in the world*. Philip Clayton considers this issue to be ‚the burning problem for faith‘ and tries to articulate his understanding of God's activity in the world which is dominated by science.⁴⁴ If the presuppositions of both - theology and science – are carefully examined and their extreme positions avoided, then there is no need for a fundamental clash between science and theology any more.⁴⁵

Michal Heller is also concerned with the question of naturalistic tendencies in science and their relation to ‚theological methodology‘.⁴⁶ The main difficulty lies in the different approaches of natural science and theology to ‚reality‘: the common root of all kinds of naturalisms can be found in a stance called *naturalistic monism* (i.e., the exclusion of all ‚supernatural elements‘), whereas theology has predominantly been (since the early phases of its development) ‚constructed‘ along the lines of *dualistic metaphysics*. Heller discusses at length the problem of evolutionary thinking in science which is the main example of the naturalistic explanations of the world.

⁴⁴ Clayton, *God and Contemporary Science*, p. x; In the context of our discussion see more in the chapters 4 and 6 of Clayton's book, where he discusses the issues of naturalism and panentheism.

⁴⁵ Griffin also outlines the clash which is the result of the ‚unyielding‘ adherence to the extreme positions held by science and theology: „On the one hand, ‚the religious view‘ is equated with a doctrine that, because of its supernaturalism, is incompatible even with the most open form of scientific naturalism and insists upon a wildly implausible reading of the empirical data. On the other hand, ‚the scientific view‘ is equated with a doctrine that, because of its materialistic atheism, is incompatible not only with supernaturalism but with any idea of theistic guidance of the evolutionary process.“; Griffin, *Religion and Scientific Naturalism*, p. 16.

⁴⁶ Heller, *The Sense of Life and the Sense of the Universe* (chapters 6-7), p. 95-129.

He refers to Edmund Husserl for whom the concept of ‚nature‘ serves as the horizon of the natural sciences, that is, as the methodological postulate – natural sciences cannot cross this horizon in their explanations of the ‚reality‘ which is studied by them. In this sense the methodology of natural sciences is ‚naturalistic‘ (as well as all kinds of reductionisms and ‚positivisms‘ contain a ‚naturalistic ingredient‘). Heller’s major concern is how to present such a ‚worldview‘ which is able to follow the current naturalistic tendencies but still convey faithfully the authentic message of Christian theology.

The naturalistic monism implies the more fundamental question of the ‚underlying‘ ontology and it is not easy to draw a line of demarcation between methodology and ontology. Both of these attitudes to reality are metaphysical stances and they cannot be dealt with on the level of the methodology of the empirical sciences. Heller reaches a rather moderate conclusion – the immanent presence and action of God in the world is the needed ‚monistic‘ version which could be accepted by most theologians as the framework capable to integrate theology and science. God is active in the world not through any supernatural interventions ‚breaking‘ the laws of nature, but his presence and activity in the world is precisely ‚revealed‘ by the ‚ordered‘ natural ‚functioning‘ of the world. He points out that theologians should pay closer attention to the doctrine of *creatio continua* which – if continually appropriated in the ever-changing scientific and philosophical contexts - could be the needed key to overcome the tension between monism and dualism. Thus, Heller’s version of Christian naturalism is not an attempt to

reduce the ‚supernatural‘ to the ‚natural‘. On the contrary, he wants to ‚immerse‘ all which is called ‚natural‘ in the Mystery of God, in the ‚Unlimited Field of God’s Rationality‘.⁴⁷ His conclusion in this respect is similar to the approach of Alexei Nesteruk: Heller appeals to the cataphatic and apophatic ‚ways of theology‘ and sees the approach of Pseudo-Dionysius as an invitation for the ‚adventure of rationality‘ and challenges to follow his method which can be very promising if ‚appropriately modified and transferred to the realm of the philosophy of science‘⁴⁸

This is very similar to the position and method of Alexei Nesteruk developed in his early work *Light from the East*. In the context of our discussion of naturalism in science, let us briefly mention the basic features of Nesteruk’s conception. Nesteruk talks about the prevailing ‚natural attitude‘ (naturalistic monism) in science and in the dialogue of science and theology while his

⁴⁷ Heller M., *The Sense of Life and the Sense of the Universe*, p. 115.

⁴⁸ Heller M., *The Ultimate Explanations*, p. 188-189; „Both of these opinions [cataphatic and apophatic approaches to theology, RL] were a result of the same thing: a profound awareness of the most fundamental limitation of human rationality. But there is an important difference between them. The former opinion, the modern view, rules out whatever might be beyond the confirmed bounds of human cognition (in other words, it holds that whatever is beyond those bounds makes no sense). Thus it assumes that reality is geared to our potential for cognition. The latter opinion, represented perhaps somewhat haphazardly by Pseudo-Dionysius, effectively recognises the same limits to human cognition, but has an open attitude to those limits; although our knowledge of what lies beyond them is merely negative (apophatic), nonetheless it is a knowledge. The former opinion disavows the Mystery, on the strength of its own decree as the criterion of what has sense and what has no sense; the latter opinion immerses itself in the Mystery. The former fulfils a therapeutic function, eliminating the discomfort of ultimate questions; the latter intensifies that discomfort in order to find a remedy therein.“

aim is to defend the human person (as the ‚mystery of incarnation’) which is often lost in the scientific picture of the world and frequently also in the interactions of theology and science. This leads him to conceive of this dialogue as refusal of the natural attitude, thus challenging the sense of the dialogue itself. Nesteruk asserts that there is a fundamental asymmetry in this enterprise - life as a center of disclosure and manifestation (of being), precedes its explication through science. As an Orthodox theologian he is preoccupied with a question what is the ‚truth’ of the dialogue of theology and science. Eventually, the dialogue has sense for him only as an existential issue when the ‚mystery’ of human subjectivity is its main ‚subject’. He employs the interplay of cataphatic and apophatic statements of God (that is, that cataphatic theology has its foundation in the apophatic mode of theology, in the direct mystical experience of God) which help him to overcome the one-sided naturalistic approach of science.⁴⁹ The problem for theological interaction with the realm of science lies in the fact that ‚the chain of cataphatic statements of God can never lead to the otherness of the whole series of definitions, leaving us only

⁴⁹ Nesteruk is faithful to the cataphatic and apophatic dialectics typical for the Eastern Orthodox theology: *„Despite the logical difficulties with the ascent from nature to its creator, the vision of God can be expressed as an existential claim, based on the experience of God, rather than on any advanced abilities of arguing (...) This mode of experience restrains our thinking about the Divine from being absolutized – that is, it forbids us from substituting the concepts that we employed cataphatically in the place of the spiritual realities they are to describe (...) we must know how to express discursively that the cataphatic inferences co-relate with their apophatic foundations.“*; Nesteruk A., *Light from the East*, p. 82.

with the idea of the good architect of the universe, not its creator'.⁵⁰

He develops a specific methodological approach called '*antinomial monodualism*'. The main methodological chapter (4) of Nesteruk's *Light from the East* describes his approach in detail. His method could be summarized as follows:

„[T]heological appreciation of science should follow these steps: (1) Examine a scientific idea in all of its details until philosophical problems appear; (2) Verify that the philosophical problems, from a dualist perspective, come from comparing entities of different ontological status. (3) Develop an apophatic opposition summarizing the problem. This opposition both affirms and denies a naturally-derived claim about God. (4) When positivistic monism is avoided, this apophatic opposition is a place where science points outside itself to theology. (5) The apophatic opposition is now available for prayer and meditation, deepening an individual's quest for mystical understanding of God.“⁵¹

Later in our study a closer attention will be given to Alexei Nesteruk and his use of *phenomenology* as a mediating tool in the theology-science intercourse which helps him to further explicate and develop in greater detail his '*monodualistic methodology*'. His turn to phenomenological philosophy (in order to mediate between theology and the natural sciences) is not an arbitrary choice, but it stems from his understanding that the main and most difficult point of the dialogue is the '*dual*'

⁵⁰ See more on that issue in: Nesteruk A., *Light from the East*, p. 80-83.

⁵¹ Allen K., Alexei V. Nesteruk, *Light from the East: Theology, Science and the Eastern Orthodox Tradition*, p. 2.

position' of humanity in the universe. This dual position could be expressed as the finite and local embodiment of human beings in cosmic 'substance' on the one hand, but on the other hand we need to see the 'boundless capacity of human beings to transcend the locality of its embodiment through the knowledge of the universe.' This constitutes the problem of the origin of humanity which Nesteruk understands not only in a simple biological sense but as the metaphysical origin of human life, as the 'incarnate' consciousness. Precisely here lies the reason why the choice to limit our discourse simply to the language of the 'natural attitude' would be incomplete and thus inadequate.

Nesteruk also mentions the characteristic feature of the Orthodox theology which has never developed specific natural theology or never aspired to incorporate the scientific knowledge and its findings in the conceptual frame of its theology. On the one hand, the Orthodox theology wanted to prevent the endless fragmentation (in different schools and theological conceptions), but more importantly, there was fundamentally no tension between the development of the sciences and the 'theological statements' because of the existential character of theology itself. Theology was first of all understood not as an academic discipline, but as a way of life or a 'way to truth'. The way towards a goal which is rather attained through immediate personal experience of God and less through knowledge (employing discursive reason). This understanding of theology will obviously have implications for Nesteruk's interaction with the natural sciences. Thus, along with Heller, Ellis and Moltmann, he wants to engage in dialogue with the sciences and

point out the limitations of scientific (rather reductionistic) approaches and strive to overcome the naturalistic tendencies of the modern era. In order to do so it is necessary to *examine the ,nature‘ and ,role‘ of natural theology in the whole ,body‘ of Christian theology* and try to answer the following questions: What can theology learn from scientific cosmology and what can it not learn? And conversely - has theology anything to say about the ,universe around us‘ and thus to contribute to our understanding, that is, our ,experience‘ and ,interpretation‘ of reality in which we ,move‘ and ,have our being‘ – the reality which is investigated by science as well as reflected by theology?

1.5. Natural Theology and the Nature of Theology

At this point, we turn our attention to explicate the issue of ,natural theology‘ questioning its proper place and function in Christian theology as a whole. After providing a basic background of the concept and discussion about its key aspects, Moltmann’s understanding of natural theology will be examined.

The word ,natural‘ in the term ,natural theology‘ can evoke a notion that the proper object of natural theological study is ,nature‘ itself. But that is of course not the case. Not only because the concept of ,nature‘ is conditioned by many ,facets of the observer’s world‘ and therefore somehow blurry; but fundamentally and historically, the main question of natural theology is epistemological, i.e., it is a question dealing with a problem of what is the place of reason in theological inquiry

and what is the relationship between the natural (innate) knowledge of God (if there is any) on the one side and the revealed knowledge on the other. Thus, the task of natural theology (or theology in general) is to examine and explain the relation of Christian faith to the major source of knowledge about our world, that is, to science.

In the context of the interaction of scientific cosmology and theology we are prone to raise the basic question whether science can provide any insights about God and thus help us to know him. How should we relate modern science (and should we employ some of its findings and the ways of its argumentation) to our theological reasoning which itself is based on ‚revelation‘? How are we to do theology in the world dominated by science? Mindful of the peculiar calling of the church, her existence ‚in the world‘, yet being not ‚of this world‘ remains the ongoing and permanent struggle for understanding of its ‚place‘ and of fulfillment of its role in the present situation. According Philip Clayton, raising the question of natural theology ultimately means to engage in a *‚fundamental discussion of the nature, status and truth claims of both, theology and science.‘*⁵²

The term ‚natural theology‘ can also bring to mind the immediate associations with the growth of this branch of theology since the sixteenth to eighteenth centuries as well as the famous figures from this period (e.g. Isaac Newton, William Paley, or later, Adam Lord Gifford). David Wilkinson makes an

⁵² Clayton, *God and Contemporary Science*, p. 5.

important point when he suggests to be attentive to the historical development of the relationship between ‚revealed‘ and ‚natural‘ theology. He observes certain historical ‚fluctuations in popularity‘ of natural theology (and the implied variable intensity of its cultivation) and refers to those who suggest that the ‚explosion of natural theology in the eighteenth century had its basis in a decisive shift in the balance of importance accorded to revelation and reason with a swing towards the latter.‘⁵³ The history of natural theology is as long as the history of theology itself and tracing its complicated development is not our aim. Nevertheless, it is necessary to mention some of the problems which emerged along the way. Luis Dupré studies the development of natural theology in order to show where the roots of the tension - which is at times acutely felt between the ‚revealed‘ and ‚natural‘ theology - could be found. The core of the problem lies in the *detachment* of the realm of *nature* and of *faith*.⁵⁴

Scientists and theologians (active in the dialogue of science and theology), such as Thomas Torrance, Alister McGrath, John Polkinghorne, Wolfhart Pannenberg and others claim an important place for natural theology within the whole body of

⁵³ Wilkinson D., *The Revival of Natural Theology*, p. 100.

⁵⁴ Dupré L., *Passage to Modernity*, p. 179-180; „What distinguishes the natural theology that emerged in the sixteenth century is that it brackets all those theological and religious assumptions and detaches the realms of nature and faith from each other (...) The advocates of natural theology insisted on proving the existence of a Creator of the cosmos independently of any revelation (...) The fundamental problem was that the new natural theology continued to argue on the basis of God’s immanent presence in nature (both human and cosmic) after having defined nature as an independent, self-sufficient entity“.

theological knowledge. They perceive ‚natural theology‘ as an integral part of Christian theology, striving to build a bridge between the two worlds - of science and theology - and by doing so, overcoming the misery of the late modernity. Although the understanding of reality (in the context of our discussion pertaining to natural theology) is a complex question – and thus there is not the consensus in the search for its definition – most of theologians mentioned above would agree that both, theology and science, proceed from the a posteriori reflection of reality independent of them.

As stated above, because of the ambiguity of the term ‚nature‘, and because of disagreement among theologians (on what is precisely meant by ‚theology‘) it is necessary to define the term ‚natural theology‘ prior to any further dialogue with our main theologians or any investigation of their particular models.⁵⁵ Natural theology is often seen in contraposition to revealed theology and it’s important to note at this point the strong emotions in any discussions with Karl Barth over ‚natural theology‘ and its place in the whole of theology. Barth’s objection to ‚natural theology‘ is of course widely known as being the main influence resulting in some degree of ‚isolation‘ of theological thinking and/or and in creating the sense that the findings of natural sciences are superfluous for theology.

⁵⁵ *Companion Encyclopedia of Theology* lists 5 different understandings of the concept of natural theology. Byrne, Houlden; *Companion Encyclopedia of Theology*, p. 388-389.

At this point we need to narrow our discussion down to examine Moltmann's conception of natural theology, since the critical discussion with Jürgen Moltmann⁵⁶ constitutes the significant part of our study. At the outset Moltmann asks the essential question – *how is it possible to see (or on what 'grounds' can we consider) nature (physis) as God's creation (ktisis)*. After a brief sketch, framing the historical experience of Israel employing the language of the Kingdom of God and the covenant⁵⁷, he moves to examine in detail the concept and scope of natural theology in order to answer the question mentioned above (which also implies the inquiry into the relationship of natural theology and theology of nature). Moltmann starts by reminding us the historical origin of 'natural theology' (*theologia naturalis*) stating that it was derived from the ancient Stoic philosophy. Christians, with their belief in creation, changed the concept of nature and used the term to refer to the finite,

⁵⁶ For the proper grasp of Moltmann's understanding of his conception of natural theology it is helpful to consider it on the background of the whole of his theology. In our study, the main emphasis is laid on the following central aspects of Moltmann's work: his theology of hope, the vision of Cosmic Christ and the new creation of all things which is based on Christ's resurrection. The ecumenical setting of his theological endeavor is also typical for Moltmann. He was also interested in the dialogue of theology and science. Let us quote his 'confession' from *Science and Wisdom*, another important source which will be discussed in our study: „From very early on, the theological discussion with scientists fascinated me. [I was convinced] that theologians can learn something about God not just from the Bible but from 'the book of nature' too. Listening to scientists, I have tried to present the profile of theology which is turned towards them. So my concern was always to reformulate theology in a scientific respect.“; *Science and Wisdom*, p. XI-XII; (This overview is largely based on McGrath's *The Blackwell Encyclopedia of Modern Christian Thought*).

⁵⁷ „In the biblical traditions of the Old and New Testaments, experience of the world as creation is determined by belief in the revelation of the creative God in Israel's history (...) Creation is the universal horizon of Israel's special experience of God in history.“; Moltmann, *God in Creation*, p. 54 .

contingent and ‚experienceable‘ reality of things. Understood this way, those ‚things‘, which can be known empirically, could eventually lead us to knowledge of God. This knowledge is in turn seen as derived from ‚the book of nature‘, in the ‚light of reason‘, i.e., with the help of innate human reason. According to Moltmann, „[n]atural theology is in actual fact not a natural theology at all, but a *creaturely* one (...) and would not exist without a church. The transformation of the concept of nature into the concept of creaturely being shows very clearly the influence of ‚the book of Scripture‘ on ‚the book of nature‘.“⁵⁸ Moltmann stresses the *importance of natural theology* and develops his argumentation making the following observations:

(1) *Natural theology* is the *general presupposition* of specifically *Christian theology*. Moltmann recalls the view of Pre-Enlightenment protestant orthodoxy on the issue of natural and supernatural knowledge of God: „Natural knowledge of God is, on the one hand, knowledge which is innate in the human being; on the other hand, it is acquired through the observation of God’s works and efficacies in nature and history.“⁵⁹ It is related to the classical view of Thomas Aquinas presenting natural theology as a ‚part‘ of the ‚forecourt of revealed theology‘, and within it to the ‚foundations‘ of the articles of faith:

„Natural theology as an active presupposition is essential for revealed theology (...) and aims to present its historical modality as universal.“

⁵⁸ Moltmann, *Experiences in Theology*, p. 64.

⁵⁹ *Ibid.*, p. 66-67.

Moltmann claims that ,the form of natural theology today is that of the *open question* rather than that of the final answer (...) and means the universal community of enquirers (...) asking *the big question* about humanity ,*What is the human being?*‘, (which is) *the reverse side of the question about God.*“

He concludes that natural theology tries to pose the basic question about God, which is the *metaphysical* and *eschatological* question of human beings, and treat it as a question *for* humanity.

(2) Moltmann goes further and he claims that *natural theology* is the *consequence* and the *eschatological goal* of historical and Christian theology, thus implementing a reversal of the classical view of Thomism:

„Natural revelation is not that from which we come: it is the light towards which we move. The *lumen naturae* is the reflection of *lumen gloriae* (...) This transposition would make natural theology a goal of Christian revealed theology, no longer its presupposition. The presupposed natural theology is not a forecourt of revealed theology itself: it is a fore-shining of revealed theology’s eschatological horizon, the theology of glory. In this eschatological context, natural theology too is in its own way a *theologia viae*, theology of the way. It *articulates the ,sighings of creation‘* and *interprets ,the history of nature‘ in the vista of creation’s future.* Natural theology is therefore at once *recollection of creation* and an eschatological *hope for creation* (...) If God can be known from the world – in whatever way – then this world becomes transparent for God’s invisible presence, and potentially a parable for his coming

kingdom (...) Natural theology *understands the world sacramentally as the real presence and advance radiance of the coming kingdom.*⁶⁰

Moltmann is asking himself at this point if there is still a need to draw a thick line of demarcation between the ‚two modes‘ of Christian theology, and concludes that there is no Christian theology without natural theology. Finally, his last observation links the previous two points together. Thus eventually:

(3) *Christian theology itself is the true natural theology:*

„Inasmuch as natural theology has to do with the universality of God, we might also view it as one dimension of revealed theology, for the universality of the one God is also part of God’s revelation (...) revealed theology must presuppose the universal revealedness of God.“⁶¹ Moltmann concludes his argumentation concerning the tension between the two different ways of arriving at knowledge – *analogia fidei* (from above) and *analogia entis* (from below) by suggesting: „Could this dispute not be settled as a dialectical play of reciprocal knowledge - *analogia entis* in *analogia fidei*, the analogy of essence in the analogy of faith?“⁶²

Summing those observations up, Moltmann states clearly that ‚natural theology‘ is a task for Christian theology today.

„If Christian theology sees itself solely as a function of the church (...) it does not need the universal horizon of ‚natural theology‘. But if Christian theology sees itself as a function of the kingdom of God, for

⁶⁰ Ibid., p. 72-73.

⁶¹ Ibid., 73-74.

⁶² Ibid., p. 75-78.

which Christ came and for which the church itself is (...) it must develop as *theologia publica* in public life (...) and needs the framework of a natural and political theology.“

One important remark is added: If natural theology is a task for Christian theology it practically means *raising the cosmic question* examining the stability of our universe in its contingency, ‚wondering‘ what holds it together.“⁶³

Moltmann concludes with a crucial observation for our study: He claims that today we can participate in creating a ‚new theology‘, that is, „*out of its own eschatological theology*, Christian theology is in the process of *drawing up a new creation theology*, and out of that a natural theology of its own“. The goal of such a ‚natural‘ theology is to address the challenges of our time and cooperate with other theological traditions, religious communities and contemporary philosophies, and especially with the realm of science. „It is through natural theology that others can be brought to *the mystery of God’s presence in all things*.“⁶⁴ Ultimately, as we will see later, Moltmann’s natural theology should be understood in the wider, Trinitarian framework (*perichoresis*) of his theology of creation (i.e., panentheistic understanding of the relation of God and the world), in which he aims to link God’s revelation and human experience. Moltmann’s *panentheism* aims to bridge this gap when it addresses the issue of the incarnation of the Logos of

⁶³ *Ibid.*, p. 69.

⁶⁴ *Ibid.*, p. 79-83 [emphasis added in all quotations above].

God in Jesus Christ and the ‚hidden‘ role of the Holy Spirit in Incarnation. It is precisely this argumentation which makes Moltmann a perfect partner in dialogue with Alexei Nesteruk, whose ‚natural‘, ‚creaturely‘ (and thus ‚existential‘) theology we aim to explicate in more detail in the chapter 4 of our study.

At this stage of our argumentation we can conclude that our view of *nature* as *creation* provides us with theological foundation for an accountable and thus reasonable natural theology. It entails the need to take into account the specifically Christian understanding of creation as well as the knowledge of God as a Trinitarian event, and the notion of the creation of humanity in the Trinitarian image of God (*imago Dei*). Seen that way, natural theology becomes a ‚tool‘ by which Christian theology may address the world, and engage in fruitful dialogue with other scientific disciplines, including cosmology. Our discussion with Moltmann also suggests that ‚we are dependent upon some form of revelation of God’s purposes if we are to put nature into proper theological perspective, i.e., if we are to think of nature as creation.‘ In this context we can also refer to Ted Peters who mentions the need for an ontology of the future and explains ‚the determining power of the as-yet uncompleted whole‘. He claims that ‚*to be is to have a future, God’s future*‘ and that ‚*God’s creative activity within nature and history is derivative from his act of creating and redeeming the whole of the cosmos*‘.⁶⁵

⁶⁵ Peters, *Cosmos as Creation*, p. 89-90.

Peters also calls for a potential reversal of perspective in natural theology.⁶⁶ He wants to stress the simple fact that theologians should pay closer attention to the findings of contemporary science (cosmology) for the benefits of both, theology and science. They would both agree with P. Clayton's conclusion: „*The single greatest positive result of current discussions in cosmology lies in the fact that scientific results plead for meta-physical, and ultimately theological, treatment and interpretation.*“⁶⁷ That is why theologians should become good listeners, be informed by the current discoveries in cosmology to get better understanding of the world created by God, and to be ready to provide a wider interpretative framework.

For the purposes of our further discussion with Alexei Nesteruk let us refer to his theological position and his understanding of the place of human reason within ‚the whole‘ of theology:

„Authentic theology consists not in the conjectures of man's reason or the results of critical research but in a statement of the life into which man has been introduced by the action of the Holy Spirit.“⁶⁸

⁶⁶ Ibid., p. 27, Some of the basic intentions behind our study can be well summarized by the following words of Ted Peters: „The aim of natural theology traditionally has been to ask what our study of nature can contribute to our knowledge of God. But we could work with somehow different aim, namely, to ask what our knowledge of God can contribute to our knowledge of nature (...) We could begin with nature and then ask about God; or we could begin with what we think we know about God and then ask how this influences what we think about nature. Or we could do both. Both is what we do here.“

⁶⁷ Clayton, *God and Contemporary Science*, p. 160-161.

⁶⁸ Nesteruk A., *The Universe as Communion*, p. 106; (Archimandrite Sophory's quote used by Nesteruk).

Thus, there is a need to clarify further the question of the role of human reason and its place within (and the relationship to) the whole 'body' of Christian theology. Mindful of the fragmented nature of Christendom – manifested by the 'ecumenical presence' of the proponents of the dialogue and the contributors to our discussion on the pages of our study – and the difficult historical development resulting in countless conceptions of theology we need to preserve in our minds the latent question 'what is the true nature of theology?' In the following passages the tension and mutual interaction of grace and nature in our quest for truth will be examined.

1.6. The Dialectic of Nature and Grace

Most theologians would argue that Christianity is first of all a 'revealed' religion - man comes to know God in the light of His revelation. But, as it was argued earlier, it seems that man can achieve some knowledge of God by the light of natural, innate human reason. In the context of this main contradiction, let us define *grace* in simple terms: it is the *working of God himself, as his benevolence shown to humanity, spontaneous and unexpected, free gift of God Himself*. By an act of divine favor and love, human beings are called to share in the life of God. Stressing the 'uncreated' nature (form) of grace we may also understand it as Divine indwelling (*perichoresis*), a notion which can also be extended to elevation or 'deification' (*theosis*) of nature. In the context of our discussion about the nature of theology (and its interaction with the natural sciences) we can

ask about the bearings the notion of grace has on the human capacities to reason about and to ‚know‘ God. If the fulfillment of man´s life is to be found in sharing in the life of God, what´s the place and role of ‚natural capacities‘ of man? Thus, the question at hand is not whether nature and grace are different ‚realities‘, but how their relationship should be understood.

The nature-grace dialectic is present throughout the whole history of theology.⁶⁹ For the purposes of our further discussion with Alexei Nesteruk it is also important to hear the specific Orthodox stand on the issue of grace and nature which could be understood along the lines of the Eastern Orthodox distinction between the Divine essence and the Divine energies of the Trinity as well as two aspects of the ministry of the Holy Spirit:

„[The] theology of the Eastern Church distinguishes in God three hypostases, the nature or essence, and the energies. The Son and the Holy Spirit are, so to say, personal processions, the energies, natural processions. The energies are inseparable from the nature, and the nature is inseparable from the three Persons (...) [Eastern tradition] recognizes no distinction, or rather division, save that between the created and the uncreated (...) That which Western theology calls by the name of supernatural signifies for the East the uncreated – the divine energies ineffably distinct from the essence of God (...) The act of creation established a relationship between the divine energies and that

⁶⁹ It was a pressing issue for Augustine of Hippo who developed his theology of grace in order to defend the church against the heresy of Pelagianism. It was also a major issue for Thomas Aquinas who - by employing Aristotelian metaphysics - developed a synthesis in order to systematize the issue of the relation between nature and grace. According to him, nature and grace were understood as distinct parts of a compound whole, not as isolated ‚elements‘. Later, in the history of Reformation, the issue of grace and (human) nature became fundamentally important for Martin Luther.

which is not God (...) the divine energies in themselves are not the relationship of God to created being, but they do enter into relationship with that which is not God and draw the world into existence by the will of God.⁷⁰

The explication of this difference, and specifically, expounding of the concept of God's energies in the world and ‚correlatively‘ the human ability to contemplate the ‚inner essences‘ of things constitutes a significant part of Nesteruk's approach. Another feature of the difference between the East and the West is the subtle pneumatological differentiation between the two aspects of the ‚operations‘ of the Holy Spirit whose Trinitarian ministry is available to all - its *general* (external) and *special* (internal) operations:

„The general ministry of the Holy Spirit applies to all of creation and involves a variety of salvific activities. Towards mankind his redemptive activity is of external nature. (...) His special ministry is given to the organic members of His Body and continues in the mystical life of the Church (...) The Spirit of God operates externally upon all of mankind.“⁷¹

Vladimir Lossky concludes, that nature and grace should not be separated, because as a whole they constitute one image of God in man. He claims that Eastern tradition never speaks of ‚pure nature‘ to which grace is added as a supernatural gift, but he stresses that grace is implied in the act of creation itself.

⁷⁰ Lossky V., *The Mystical Theology of the Eastern Church*, p. 85-88 [emphasis, RL].

⁷¹ *The Orthodox view on Grace*, p. 11, in: Barnes P., *The Non-Orthodox: The Orthodox view on Christians outside of the Church*.

When the West speaks of grace, the Eastern Orthodoxy tends to employ the concept of *perichoresis*, the reciprocal indwelling of three Persons of the Trinity as well as the interpenetration of the world - God's creation - by God Himself. Lossky concludes with the eschatological vista of the 'end of all things': „The world, created in order that it might be deified, is dynamic, tending always towards its final end.“⁷² Theology and philosophy of Vladimir Lossky were the rich sources of inspiration not only for numerous Orthodox theologians, but also for some protestant scientists and theologians, including Arthur Peacocke, who called his conception of the relationship of theology and science the *sacramental panentheism* or *theistic naturalism*.⁷³

Teresa Obolevitch speaks of the 'drama of Orthodoxy' which consists in the following antinomy: On the one hand there is the persistent effort to give the logical form to all theological reflection. On the other hand, there is faith in God who transcends all human concepts and thus remains unknowable.⁷⁴ This antinomy was, according to Obolevitch, perfectly expressed by the conception of Divine energies as distinct from His essence in the teaching of the Eastern Fathers of the church. The interplay of those two uniquely Orthodox theological views constitutes the 'backbone' of Nesteruk's research, the advocate of the neo-patristic synthesis of theology and science.

⁷² Lossky V., *The Mystical Theology of the Eastern Church*, p. 101.

⁷³ Obolevitch T., *Filozofia rosyjskiego renesansu patrystycznego*, p. 257.

⁷⁴ *Ibid.*, p. 137-138 [paraphrased translation].

Nevertheless, in the context of our study which is concerned with the criticism of modernity undertaken by Murphy, Ellis, Moltmann and Nesteruk, it is necessary to pay closer attention to the later development of theological thought. We need to address the dualism spread throughout the modern Western thinking, namely a dichotomy (separation) in the theological understanding of the relationship between nature and grace. This attitude was unknown to Latin and Greek church fathers (as well as to the significant theologians of the Middle Ages) and thus it is understandable and right to challenge this widespread modern notion. *The question we face is how the modern contraposition of grace and nature should be evaluated and potentially overcome, how are we to view nature and grace again as a unified whole.*

The whole ‚reality‘ was, since modern times, often represented as a disconnected two-layered structure. The ‚upper‘ supernatural layer is studied by theology, whereas the lower level of ‚nature‘ is the domain of natural sciences. The practical consequence of this understanding was the failure to relate the concerns of the ‚human world‘ and those ‚heavenly realities‘ predicated by theology. Thus we are confronted by a difficult task how to overcome the negative impact of modernity - the modern isolation of evaluative judgments, especially moral ones concerning ‚values‘ (viewed typically as personal, subjective) – from the rest of knowledge (as ‚objective‘, scientific ideal). Those are some of the afflictions of modern mind (stemming from the split of nature and grace) which need to be treated by careful analysis.

The issue of the proper relation of the concepts of *nature* and *grace* remains and constitutes the underlying core problem of our study, which is the expression of our strife for a more balanced view. The Eastern Orthodox theological perspective – addressing especially the eschatological dimension of humanity in the universe which is developed within the framework of the Trinitarian image of God in man - can provide the needed ‚ground‘ for and ‚pointers‘ to the searched ‚fullness‘ and ‚unity‘. Nonetheless, before the need for such a unity could be fully acknowledged and the possibility of ‚wholeness‘ of knowledge explicated, let us first examine in more detail the ‚broken image of humanity‘ in the universe.

1.7. The Disintegration of Modern Mind

*„Modernity is an **event** that has transformed the relation between the cosmos, its transcendent source, and its human interpreter.“⁷⁵*

Numerous attempts were (and still are) made to criticize modernity. Many theologians and philosophers blame the modern thought for the (alleged) negative impact on the whole of culture. The ‚critique‘ of modernity is also one aspect of our study, as an integral part of Ellis´ and Murphy´s, Moltmann´s and Nesteruk´s agenda (all of them also appeal to some pre-modern ideas). But what is often neglected by the critics is,

⁷⁵ Dupré L., *Passage to Modernity: An Essay in the Hermeneutics of Nature and Culture*, p. 249 [emphasis, LD].

according to Louis Dupré, the thorough understanding of the birth of modernity (and its nature) as well as a clear idea of what is meant by the ‚invoked‘ pre-modern modes of thought. Dupré’s proposition is valuable since he refuses to criticize modernity (from the post-modern position), but strives to provide more balanced account of modernity in order to offer some guidelines for ‚judgment‘ and ‚evaluation‘. In his study ‚Passage to Modernity‘ Dupré wants to provide a careful evaluative survey mapping the origin, growth and the impact of modern thought on man’s self-understanding. He uses an apt description of this fundamental change – he speaks of ‚shattering of the organic unity of the Western view of the real‘ (i.e., the disintegration in which the ‚schism‘ between ‚grace‘ and ‚nature‘ was but one ‚ingredient‘ in its later development) ⁷⁶:

Dupré provides a detailed account of the shift from the traditional worldview - in which the divine, the human and the physical formed a unity – to the new, modern, ‚nominalistic‘ worldview. He considers nominalism – responsible for the separation (of the three ‚ingredients‘ of the traditional worldview)

⁷⁶ „The earliest Ionian concept of *physis* had combined a physical (in the modern sense!) with an anthropic and a divine component. The classical Greek notion of *kosmos* (used by Plato and Aristotle), as well as the Roman *natura*, had preserved the idea of the real as an harmonious, all-inclusive whole. Its organic unity had been threatened by the Hebrew-Christian conception of a Creator who remained outside the cosmos. Yet, through his wisdom, support, and grace, he continued to be present in this world. At the end of the Middle Ages, however, nominalist theology effectively removed God from creation. Ineffable in being and inscrutable in his designs, God withdrew from the original synthesis altogether. The divine became relegated to a supernatural sphere separate from nature, with which it retained no more than causal, external link. This removal of transcendence fundamentally affected the conveyance of meaning.“; Ibid., p. 3 [emphasis, LD].

as individualities, operating separately in their own spheres - as the main factor (the main ground) of the rise and growth of modernity.⁷⁷

Very similar in its aim, scope and approach is *Cosmopolis*, the book of Stephen Toulmin, the prolific author on the philosophy and history of science. Both Dupré and Toulmin agree that our age – although described as postmodern - is still highly dominated and ‚guided‘ by the modern assumptions. Thus, it is important to understand the nature of modernity, reflect on its development to be informed enough to be able to adopt the ‚proper‘ attitude. Toulmin’s aim is to provide an account of both the origins and the prospects of our ‚modern‘ world. He traces the evolution of modernity and stresses the need to harmonize the separated ‚streams of human thought‘. He claims that *it is necessary to reconcile the divergent paths that the sciences and the humanities have taken*. Toulmin claims: “We need to balance the hope for certainty and clarity in theory with the impossibility of avoiding uncertainty and ambiguity in practice”⁷⁸

Toulmin stresses the ethical dimension in the suggested process of ‚harmonization‘ of the sciences with the humanities when he speaks of ‚humanization of modernity‘. He calls the readers to participate in ‚humanizing modernity‘ which means a certain process of the ‚re-contextualizing‘ of modernity with the

⁷⁷ Thiel J., *Passage to Modernity: An Essay in the Hermeneutics of Nature and Culture*, by Louis Dupré; (a book review), p. 555.

⁷⁸ Toulmin S., *Cosmopolis: The Hidden Agenda of Modernity*, p. 175.

aim to reconcile theory and practice. For Toulmin, it means to look at the natural sciences, philosophy and politics with ‚morality in mind‘, to see them in the light of ethics (to ‚immerse‘ them therein). Both Toulmin and Dupré encourage the ‚positive critique‘ and evaluation of modernity as they are questioning the possibility of a new, more coherent ‚worldview‘.⁷⁹

Alexei Nesteruk also speaks of the rise of modernity and the problem of the ‚disintegration of human mind‘. His criticism is mainly directed against ‚scholastic tendencies‘ and its exaggerated ambition to control the access to truth only by means of reason. He turns against the intellectual efforts of scholasticism to outline the borders (as autonomous spheres of operation) between man’s capacities to discern the created realm and its creator on the one hand and the transcendent reality of God on the other. He traces the roots of scholasticism and finds the ‚seeds‘ of it as far back as in the works of Augustine.⁸⁰ There are two main aspects related to the problem of the ‚modern mind‘. Nesteruk mentions another dimension of this fragmentation, namely: (1) the *difference between the East and*

⁷⁹ Dupré, *Passage to Modernity*, p. 253, „While anxiously seeking a new wholeness we must nevertheless carefully protect those fragments of meaning that we possess, knowing that they may be the bricks of a future synthesis (...) ‚We must hold hard to this poverty, however scandalous, and by more vigorous self-recoveries, after the sallies of action, poses our axis more fully‘.“

⁸⁰ Also Philip Clayton argues in the similar vein: „Thus Augustine proceeded from the principle that ‚if righteousness comes of nature, Christ died in vain‘ to the conclusion that ‚Men go on to search out hidden powers of nature (...) which to know profits nothing‘. Augustines separation, which has had such an immeasurable impact in the history of Western theology, did not find the similar echo with the Greek theologians, who insisted upon the pervasive place of grace within nature.“; Clayton, *God and Contemporary Science*, p. 106.

the West and the disparate development of their thought, both philosophical and theological. He also traces the implications of this fragmentation, which are (2) the sociological and psychological impacts of the ‚shift of worldviews‘ (the consequence of the broken synthesis).

Nesteruk, whose interest is also the inter-ecumenical dialogue, traces this fragmentation and analyses the divergence between the East and the West as the result of a different attitude to science which was adopted in the West and the East respectively. As a scientist and an Eastern Orthodox theologian he is particularly concerned with the following ‚historical‘ issue: „[W]hy Western Christian civilization developed an approach to the natural sciences in the twelfth–thirteenth centuries that was radically different in comparison with what had been in Orthodox Byzantium, and why the whole Greek patristic heritage was effectively neglected and lost.“⁸¹

Even though the answer to this question is beyond the scope of the present Nesteruk’s research, it is clear that this question lies at its foundations (as the motivation) and has implications for the whole of his work. Seen from this perspective, the rise of modernity is a predominantly Western phenomenon. The reaction of the East towards the modern tendencies (influences) in philosophy (and theology) of the West varied. Nevertheless, the evaluation of the Western modernity was quite often cautious or negative. The neo-patristic synthesis, advocated by Florovsky,

⁸¹ Nesteruk A., *The Universe as Communion*, p. 22.

Lossky (et.al.) and followed by Nesteruk is but one example of the active ‚defense‘ against the modernistic tendencies permeating the Eastern theology. It was the Western science, first of all, that questioned the legitimacy of faith. To restore the proper place of faith within the whole of human knowledge is the challenge theology faces today. Eastern Orthodoxy, according to Nesteruk, can play an important role in this process.

Nesteruk also mentions the existential consequences of the rise of modernity. We can see it as a certain ‚derailment of thought‘, existential disorientation, when man loses the awareness of his position in the world (on social and psychological level). These consequences can also be described as the split between ‚thought‘ and ‚heart‘ which is so palpable today in modern (especially Western) society. The metaphor of ‚knowing by head‘ (thought) as opposed to ‚knowing by heart‘ (e.g., by intuition, imagination) are frequently used in our culture to distinguish between the discursive reason and the other ways of acquiring knowledge (e.g., symbolic or emotional ‚faculties‘). The problem of the modern era lies in the strict separation of discursive reason (as the only ‚proper‘ way of acquiring knowledge) from the other faculties constituting one human being. As we will see in the case of Alexei Nesteruk’s conception of the dialogue of ‚faith and reason‘, the ‚knowledge by heart‘ is closely related to faith and love, the life of prayer, repentance and the sacramental life of the church. The unity of ‚heart‘ and ‚thought‘ was always protected and maintained carefully in Eastern Orthodoxy. In this context Nesteruk mentions the key role which cosmology (in the pre-modern sense

of the word) has always played in any society and in the lives of its members. It is here where he sees the imperative for theology to engage in the dialogue with modern culture, its philosophy and science (especially scientific cosmology) in order to hear the urgent questions, *anxieties* of the present age and be prepared to provide relevant insights.

Finally, to sum up the argumentation of this paragraph, let us quote the conclusion of Luis Dupré and his important observation, describing the changed situation (and awareness) of the man's position in the world, which illustrates the 'intuitions' of all authors mentioned in this passage:

„Around 1660, the last comprehensive integration of our culture began to break down into the fragmentary syntheses of a mechanist world picture, a classicist aesthetics, and a theological scholasticism. Soon a flat utilitarianism would be ready to serve as a midwife to the birth of what Nietzsche called modern man's small soul.“⁸²

The call for a new synthesis is understandable. The research programs of Ellis and Murphy as well as of Nesteruk are posing the basic questions: Is there a chance for a new synthesis? How could such a synthesis look like? Their projects should be understood mainly as a strife to scrutinize this possibility. Since their projects represent the Western and Eastern perspectives respectively, the aim of the following chapter is to elucidate the similarities and differences of both approaches to the

⁸² Dupré L., *Passage to Modernity*, p. 248.

„relationship‘ of faith and reason, and ultimately, to their apprehension of truth.

1.8. Faith and Reason: The Quest for Truth between the East and the West

„In the Christian West discussions on the concept of truth were conducted from a theoretico-epistemological perspective, in the East the issue of truth concerned a true, this is, moral attitude.“⁸³

The problem of the relationship between philosophy and religious faith is a long-standing neuralgic point in the history of thought and the issue of faith and reason has been aggravated since the rise of the modern times. Philosophy (and science) called into question the rationality of faith and hence challenged its legitimacy and thus also the legitimacy of theology. One of the goals of our study is to show that it is possible and necessary to question the claim of modernity for the universality of truth, that is, to suggest that ‚modern‘ ways of appropriating truth were in a certain way a deviation from the unified vision of the world that was based in the characteristic alliance between faith and knowledge, both originating in communion with God.⁸⁴ To move any further in our discussion we need to elucidate briefly what is understood by *reason* and *faith*. Since the times of Aristotle the distinction has been made between theoretical and practical

⁸³ Obolevitch, *Faith as the Locus Philosophicus of Russian Thought*, p. 10; in: Obolevitch, Rojek; *Faith and Reason in Russian Thought*.

⁸⁴ See more in: Nesteruk, *The Sense of the Universe*, p. 48.

reason: ‚between the use of our intellectual powers to gain truth, and their use to guide our conduct‘. In that respect we could talk on the one hand about theoretical wisdom and the practical wisdom (prudence) on the other.⁸⁵

Thus, when we are experiencing the clash of faith and reason and the rationality of faith is questioned, the relationship of faith to theoretical and practical reason is at stake. Our argumentation (and apologetics) would typically need to address: „(1) The extent to which the beliefs that the man or woman of faith adheres can be established by pure or inductive reasoning (...); (2) The extent to which the believer is pursuing a form of life that is prudent or self-fulfilling, or frustrating and immature.“⁸⁶

Another aspect of the tension of reason and faith is the question of the limits of reason when faced with the mystery of revelation. The substantial part of the whole realm of ‚Christian truths‘ (e.g. the doctrine of the Trinity) seem to contradict reason, so we also need to address the ‚rationality‘ of faith. Terence Penelhum lists three ways in which faith is rational⁸⁷:

⁸⁵ „Theoretical reason is commonly divided into pure reason, which proceeds wholly a priori, and inductive or empirical reason, which proceeds with the guidance of sensory or other forms of experience. Theoretical and practical reason are thought of as species of one genus because each has to proceed according to principles that it is the business of logician to examine; so that a person can be judged irrational if his or her beliefs are incoherent or confused, and equally if his or her conduct is inconsistent or self-defeating.“; Penelhum T., *The Idea of Reason*, p. 367, in: Byrne, Houlden, *Companion encyclopedia of Theology*.

⁸⁶ *Ibid.*, p. 368.

⁸⁷ „(1) Some of the truths proclaimed in revelation can be proved independently, in what came to be known as natural theology; (2) Those that cannot be so proved, or even understood by reason, are attested by evidence that makes it fully reasonable to assent to them as coming from God; (3) The appearance of contradiction in revealed doctrine, or of its conflict with natural knowledge, can always be shown to be the result of misunderstanding

Since the main focus of our study is to examine the specific contribution of Alexei Nesteruk to the dialogue of theology and the sciences, it is necessary to summarize the Eastern Orthodox view of the problem of faith and reason. The pillar of Eastern Orthodox theology and the ‚measuring stick‘ of all theology (including its methodology) is the heritage of the Church Fathers. Teresa Obolevitch studies the specifics of Russian philosophy and theology (which means implicitly Patristic theology) and gives the basic characteristics of faith in three related points: (1) *faith as integrative factor*; (2) *faith as perception of the subject-object relation*; (3) *faith as ‚I - Thou‘ relationship (personalistic aspect)*.⁸⁸ The specific nature of Russian (and Patristic) thought is the certainty about ‚existence of things‘ (i.e. ‚existential faith‘). This acknowledgement of the existence of ‚anything‘ forms the basis (ground) of any kind of knowledge – either rational, empirical or religious.

Thus, any object is understood not only as the object of empirical experience or rational thought, but also as the ‚object of faith‘ which presupposes the inner relatedness between subject and object. Obolevitch speaks about faith as ‚the intuitive, pre-discursive perception of the primordial ontical relation between subject and object.‘ The ‚primary ground‘ of

and sophistry. The gift of revelation carries us beyond, but does not contradict, the knowledge and satisfaction that the natural exercise of reason gives to us (...) Grace does not replace nature, but perfects it.“; *Ibid.*, p. 370.

⁸⁸ Obolevitch T., *Faith as Locus Theologicus of Russian Thought*, p. 21; Obolevitch warns against separating the basic features mentioned above. They were presented in those three points only for the sake of emphasizing different aspects of faith, which should be above all perceived as unity.

consciousness – the knowledge of God is given because we belong to him, we move in him and hence we can know him (Acts 17). She also mentions another level, ‚secondary consciousness‘ – „the primordial non-distinguished ‚knowledge of the world‘ as living co-belonging to the whole world.“⁸⁹ The cognition of God only justifies the cognition of the world which is rooted in him; faith determines the cognition of the world. Thus, *ratio* could be seen as a result of a ‚simplified‘ abstraction. The reason is not in the center. The central place belongs to mind (*nous*) identified with ‚heart‘ as the organ of the inner spiritual integration of the person (as the ‚organ‘ of faith which is the pre-discursive, intuitive cognition of the Divine reality). Faith ‚serves‘ as the direct confirmation of that what could not be verified through empirical (sensory) experience or rational thinking itself. She concludes that *question of faith constitutes the ‚locus philosophicus‘*, the starting point of the Orthodox philosophical reflection. Hence, while studying the issues of man, cosmos, morality and eventually truth, the Orthodox thinkers were mainly focused on the problem of God.

In this context Alexei Nesteruk talks about the paradox of human subjectivity and treats faith and reason as two modes of participation in the divine whereas the split between them is understood as the split of two intentionalities in one human

⁸⁹ *ibid.*

subjectivity.⁹⁰ The solution could be reached if we search and try to ‚reveal‘ the common foundation of both intentionalities (by mediation between those two types of experience in one human personhood created in the image of God the Trinity).⁹¹

Nesteruk stresses the problem of modern philosophy and science (especially the strong naturalistic tendencies) which cannot clarify and does not explain its personal dimension, the personhood (which is regarded as insignificant for scientific picture of reality). The result of this attitude of science is the existential disorientation and the loss of the awareness of the significance of humanity in the universe (which also means the loss of faith in God). The human person is both, a part of physical nature (as a living organism), but also a ‚free knower‘ (transcendental subject) who is able to think about the universe and to whom the universe is ‚manifested‘. The distinction of cognitive faculties of man mentioned above is based on the primary ontological fact, which cannot be fully explicated by the discursive thinking, the incarnation of the Logos of God in man

⁹⁰ Nesteruk A., *Man and the Universe: Humanity in the Centre of the Faith and Knowledge Debate in Russian Religious Philosophy*, in: Obolevitch T., Rojek P., *Faith and Reason in Russian Thought*.

⁹¹ Here we can refer again to the difference between *dianoia* (discursive reason, logical faculty, ratio) and *nous* (*intellect* in modern terms) *Nous* is also understood as the ‚organ of faith‘, the center of human existence from which faith and theology ‚proceeds‘ as its ‚existential functions‘. Consequently Nesteruk distinguishes between the two intentionalities of one subject: *dianoia*-like (or *logos*-like) intentionality and the ‚spiritual intentionality‘ of *nous* which reveals existential faith and its reference to God. To gain the fuller understanding of the Eastern Orthodox teaching on the image of God in humanity we can refer to Vladimir Lossky, on whose theology Nesteruk builds a large portion of his argumentation. The fuller account of the *imago dei* discussion could be found in: Lossky, *The Mystical Theology of the Eastern Church*, p. 114-134.

Jesus Christ (and thus implicitly in humanity). On these grounds he can eventually speak of *metanoia* as a new understanding of personhood as the center of ‚unfolding of the whole of reality‘.⁹²

Contrasting the characteristics of the Orthodox approach mentioned above to the modern thought, as it was developed in the West, we can provide the following observation: „*Ratio, understood as a reduced and transformed version of logos of Greek Patristics, corresponded to the transition from the epistemic priority of communion to the priority of the individualized rational concept.*“⁹³ The assertion of modernity that truth is based on universal reason and correspondingly, its notion of the ‚all-powerful‘ knowing subject (as impersonal and disembodied collective subjectivity), should be modified. It can be referred back to the ‚inner logic‘ of the theological way of asserting truth, that is, through the ‚events of incarnate hypostatic subjectivity‘ (theology as a ‚way of life‘).

There is therefore a need to take into account and carefully examine the split between the East and the West concerning their understanding of ‚truth‘ (their different ontologies). As Nesteruk observes, it is not only the issue of different ‚ecclesial realities‘ (seen empirically), but also (and primarily) the divergence between Orthodoxy and the West in their respective

⁹² Ibid., p. 145.

⁹³ Nesteruk, *The Sense of the Universe*, p. 51.

„broad attitudes‘ to truth.⁹⁴ Nesteruk would agree with T. Obolevitch who speaks of the wholeness of reason as the result of the „allegiance‘ to truth (understood as communion). The „true‘ theology should strive to be the expression of such a wholeness:

„Wholeness of truth requires the wholeness of reason. Orthodox believers are constantly preoccupied with the quest for such wholeness: external and internal, social and individual, intellectual and workday (...) Faith allows discovery of the meaning of not only the divine sphere, but also of reality as a whole. It is because the combination of abstract ratio with the intuitional or mystical elements with reference to the philosophy of Revelation.“⁹⁵

It is here, where Obolevitch sees the potential „meeting place‘ of Eastern Orthodoxy with the Protestant tradition. It is by the mutual interaction - the engagement in dialogue with its creative tension - in our attempts to listen to each other (as Protestant, Orthodox and Catholic theologians) that we can hope to see the more complete picture pointing towards the true nature of theology.

⁹⁴ Our „desire‘ to „attain‘ truth (expressed outwardly as the aim to examine the possibility of finding a unified and coherent worldview) requires that we call into question the current philosophical understandings of truth (and general respective attitudes to it). Matched with the motto of our study, i.e., the *return to cosmology*, we can conceive of the scope of our research as the account of *cosmology between the East and the West*, reflecting the respective approaches to philosophy, religion and also the metaphysical appropriation of the modern science. Nesteruk refers especially to Jean-Luc Marion, the French catholic philosopher (phenomenologist) and also some of the key Eastern Orthodox theologians (as the other key sources of Nesteruk’s work) who follow Heidegger in a certain extent, but present his thought in a theological perspective. See more in: Zizioulas, *Being as Communion*; Yannaras, *Person and Eros; Postmodern Metaphysics* and *The Schism in Philosophy*.

⁹⁵ Obolevitch, Faith as the Locus Philosophicus of Russian Thought, in: Obolevitch, Rojek: Faith and Reason in Russian Thought, p. 11-14 [paraphrased, RL].

1.9. Cosmology as a Unified Worldview: The Quest for a New Synthesis

All of the main participants in our dialogue deal with the problem of ‚worldview‘ and thus it is necessary to examine this concept and question its place and potential function in theology. The idea of worldview is frequently used (especially in the Anglo-American theological context) as a concept capable of providing a coherent account of the human ‚being in the world‘. All of the main figures in our dialogue use the modern physical cosmology as a rich source of philosophical and theological implications touching the problem of human existence. All of them tend to differentiate between the scientific cosmology and Cosmology (in a broader sense of the world) as the philosophical and theological reflection of the place of the human being in the ‚overall scheme of things‘. In this sense the whole of our study is mostly concerned with Cosmology, although cosmology (scientific) rests at the foundation of our reflections. The aim of this section is to examine the notion of worldview and show how it could be (in a certain sense) used as a synonym to Cosmology, which is the overarching ‚theme‘ of our study. Once again we are confronted with the limit questions, the why-questions and the questions of meaning and value – does science ignore them or is bound to deny that other explanations could be plausible? And what is the attitude of theology? Is theology ready to provide an account of its hope to the inquirers longing for a meaningful life?

The study of Murphy and Ellis expresses the underlying motivation to search for a new unified ‚worldview‘. They claim that ancient and medieval worldviews aimed to provide links between the realms of theology, ethics and philosophy of nature (from which modern science has grown). It is also possible to say, they argue, that ancient and medieval philosophers did not know the harsh divisions (dichotomies) the moderns have drawn among those areas of human knowledge. They refer to Stephen Toulmin who describes a worldview of our ancient and medieval ancestors as a ‚Cosmopolis‘.⁹⁶

David Naugle, who studies the problematics of worldview, provides a detailed account of the origin and the cultural spreading of this concept in his book *Worldview: The history of the concept*.⁹⁷ Besides the historical background tracing the origin and further semantic development of the concept of worldview, we need to subject it to a certain theological and philosophical reflection. Naugle points out that throughout its historical development the term ‚absorbed‘ some negative connotations and hence the value of the concept of worldview and its use for theology is questionable. Naugle aims to answer this issue and provides the preliminary definition of the term worldview and its basic ‚constituents‘ stressing its existential character⁹⁸:

⁹⁶ Murphy, Ellis; *On the Moral Nature of the Universe*, p. 1-2.

⁹⁷ Naugle D., *Worldview: The History of the Concept*.

⁹⁸ „First, I propose that the ‚heart‘ and its content as the center of human consciousness creates and constitutes what we commonly refer to as a worldview. Biblically speaking, then,

He continues his commentary on the dynamic influence of various forces of nature as well as culture (educational ,nurture‘ and formation) which shape the ,content‘ and ,inclinations‘ (predispositions) of our heart. The effect of those forces is the constitution of the ,presuppositional basis of life‘. Viewed from a theological perspective, we need to ,immerse‘ the whole of this discourse into a ,gracious work of the sovereign, Trinitarian God who has revealed Himself as the Creator, Judge, and Redeemer of the world‘. This gives to our ,heart‘ the right shape or frame - our vision of things forming the basic beliefs upon which life proceeds‘. Based on that observation it is possible to say that whatever proceeds out of our hearts in our ,normal‘, everyday course of life reflects our worldview.⁹⁹

Furthermore, Naugle analyzes the particular features characteristic for the concept of worldview and claims that in order to get the full definition of worldview we need to stress its semiotic and narrative character. He refers to Umberto Eco and his assertion that any culture can be studied as a semiotic phenomenon. Naugle also appeals to the theological anthropology and claims that the defining feature of human

*life proceeds ,kardiologically‘, out of a vision of the heart, and that’s what I think a worldview is! It is a vision of the heart which is ,our deepest organ of communication with the nature of things.‘ It is a vision of God, the universe, our world and our selves — rooted and grounded in the human heart. The heart of the matter of worldview is that worldview is a matter of the heart with its deeply embedded ideas, its profound affections, its life-determining choices, and its essential religion. For according to its specific disposition, it grinds its own ,lenses,‘ metaphorically speaking, through which it perceives the world and life within it. As a function of the heart therefore, Weltanschauung is an *existential concept*, indeed, a *Biblical concept*, essential to human identity as *the image and likeness of God.*“; Ibid, p. 16-18 [emphasis RL].*

⁹⁹ Ibid., p. 18f.

beings (created as *imago Dei*) is the ability of logical (*logos*) use of signs, symbols and metaphors as the ‚ciphers of reality‘. By careful analysis he finally reaches the important conclusion about the role of embodiment (*incarnation*) in forming the elementary ‚orientation‘ in the world. The center from which worldviews grow is the lived bodily experience. From this center individual people analyze their world ‚in felt semiotic, narrational, rational, epistemic, and hermeneutical ways‘. This is also the key to the proper understanding of the concept of worldview: it is being constituted by the elementary way of ‚being in the world through the *heart-body unity*.‘¹⁰⁰

This observation brings to mind the characteristic approach of phenomenology (especially in its further ‚existential‘ development and interpretations) which emphasizes the fundamental role of the immediate experience of life which is open for further expression in the language of symbols and signs of any kind. This ‚primacy of experience‘ can also serve as a needed ‚feedback‘ for theology - as a warning against the tendency to think of theology merely in ‚theoretical‘ terms. Naugle eventually refers to some basic foundings of philosophy of language.¹⁰¹

¹⁰⁰ Ibid., p. 18.

¹⁰¹ „I propose that a worldview might best be understood as a semiotic phenomenon (...) that a worldview as a semiotic structure consists primarily of a network of narrative signs that offers an interpretation of reality and establishes an overarching framework for life. Finally, I will propose that a worldview as a semiotic system of world-interpreting stories also provides a foundation or governing platform upon or by which people think, interpret, and know (...) *It digs the channels in which the waters of reason flow.*“
Ibid., [emphasis RL].

Referring to semiotics Naugle claims that a worldview employs a specific set of narrative signs in order to establish a ‚symbolic universe‘, that is, the way how we understand ‚reality‘. a worldview, as a semiotic system of narrative signs is the ‚mental medium‘ through which our world is known. This ‚symbolic universe‘ shapes the whole of the subsequent human practice and its life-determining choices.

Aware of the key role of the concept of worldview in our perception of reality we are ready to question its role in theology (and its discussion with other discourses). Where does the potential of this concept lie? As we have already mentioned above, the ‚disintegration of modern mind‘ is acutely felt by many theologians and ‚philosophizing scientists‘ who try to search for a more coherent picture of reality. They emphasize the problems of the secularized society and are particularly concerned with the sharp ‚division of labor‘, the widespread understanding in which science is treated as the only source of the objective („real“) ‚picture‘ of the world and theology to which only the subjective role was assigned (and the ‚withdrawal from the world‘ was assumed). Thus, theology yielded its ‚cultural mandate‘ to the sciences and became concerned solely with the role of a ‚therapist‘ dealing with the ‚personal issues of faith‘.

Nancey Pearcey addresses this problem and suggests the remedy. According to her ‚Christianity must be understood as a comprehensive, holistic philosophy of life. Secularism is a comprehensive worldview, and that Christians will not be able

to counter it unless they develop an equally comprehensive biblical worldview.¹⁰² She claims that Christianity (and theology as a reflection of its faith) forgot about its task to provide a coherent worldview which could give man the basic orientation, elucidate his place in the world and thus also provide some ‚guidelines‘ how to reflect on the meaning (sense) of his life. Pearcey refers to Martin Marty, an American Lutheran religious scholar, and summarizes his assertion concerning the ‚scope‘ and ‚sphere of application‘ of religious faith.¹⁰³

The strict separation of the secular from the religious, fact from value, personal from the public which permeates through all the areas of human life needs to be addressed. The ‚wave of interest‘ to approach the Christian faith and its search for a complex and ‚unified‘ worldview which have swept through the (mainly) Anglo-American theology (whereas the dialogue of theology with the natural sciences should be seen as its expression) is considered by many to be one of the most important trends in the recent history of thought. The reason for such a positive evaluation is the fact that the ‚holistic thinking‘

¹⁰² Pearcey N., *Total Truth*, p. 452.

¹⁰³ Marty claims that every religion, generally speaking, deals with two perennial issues – (1) it wants to express the message and outline the way of *personal salvation*, providing us with ‚how‘ of the ‚getting right with God‘; (2) it also tries to provide the *lens* for our *interpretation* of the world. But unfortunately, the second function of Christianity is frequently neglected or even opposed by many people today who do not expect Christianity to provide an overarching interpretation of the world. Marty speaks about the Modern Schism (in a book of the same title), and argues that we are living in the first time in history where Christianity has been relegated to the private and has largely withdrawn from speaking to the public square. He claims that this *internalization* or *privatization* of religion is one of the most momentous changes that has taken place in Christendom; *Ibid.*, p. 35.

can help the church to get out of its ‚cultural captivity‘ to which it was ‚maneuvered‘ in its historical development (or to which the church have withdrawn voluntarily). Thus, to neglect the ‚worldview‘ thinking means for the church to embark on the road to isolation. Engaging in the ‚worldview‘ discussion, on the contrary, would be to open the door for a more optimistic prospects for a wider cultural change where the voice of the church can affect the ‚face of society‘.¹⁰⁴

Modernism, as a worldview ‚responsible‘ for the fateful ‚split‘ of human mind and also for ‚retreat‘ of theology from the public square is being replaced by the new, postmodern, view of the world. The transfer to postmodern ways of reasoning means to ‚transcend both *modernism*, in the sense of the worldview that has developed out of the seventeenth-century Galilean-Cartesian-Baconian-Newtonian science, and *modernity*, in the sense of the world order that both conditioned and was conditioned by this worldview.¹⁰⁵ The postmodernism itself also comes in different versions. Our quest for a coherent and holistic ‚picture of reality‘ – as the underlying motivation of our study - can be well characterized by the word *constructive* or *re-*

¹⁰⁴ The role of the concept of worldview and its significance can be best summarized by the words of David Naugle: „In this contemporary setting of dwarfed versions of the faith, the concept of worldview (...) offers the Church a fresh perspective on the holistic nature, cosmic dimensions, and universal applications of the faith. Plus, the explanatory power, intellectual coherence, and pragmatic effectiveness of a Christian worldview not only make it exceedingly relevant for believers personally, but also establish it as a solid foundation for vigorous cultural and academic engagement.“ Naugle D., *Worldview: History, Theology, Implications*, p. 2.

¹⁰⁵ Griffin, *Religion and Scientific Naturalism*, p. x.

constructive, as was already mentioned with reference to Ted Peters. David Griffin's definition can be used to express concisely the 'main lines' and the 'main direction' of our argumentation: „[C]onstructing a postmodern worldview through a revision of modern premises and traditional concepts in the light of inescapable presuppositions of our various modes of practice.“¹⁰⁶ The hidden commitment of faith (religious belief) in various scientific theories – in our case especially cosmological – will come to the foreground in its 'bareness' later in our study.¹⁰⁷

While stressing the desirable *revisionary* and *constructive* moments, it is also necessary to keep the *deconstructive* aspect in our approach, simply because of the 'reality' of *practice* as the 'ground' of all presuppositions. The constructive approach accepts the premodern notion of nonsensory perception and returns to organicism which results in the reconstruction which 'involves a new unity of scientific, ethical, aesthetic and religious intuitions.' While rejecting scientism (but appreciating science as such) the hoped for result of our reconstruction is 'a creative synthesis of modern and premodern truths and values.'¹⁰⁸

The key feature of our search for a 'unified' worldview is the quest for (and allegiance to) truth, that is, to a concept which was highly criticized by modernity and is also highly questionable in our present-day postmodern philosophical

¹⁰⁶ Ibid., p. xi.

¹⁰⁷ An intriguing study of R.A. Clouser, dealing the hidden role of religious belief in science, can serve as an ideal introduction to Nesteruk's key concept of theological commitment in modern scientific cosmology. See more in: Clouser, *The Myth of Religious Neutrality*.

¹⁰⁸ Ibid., p. xi-xii.

,climate‘, which is characteristic by its ,relativity of the universe‘ constituted of the whole array of particular accounts of truth. Referring to Ted Peters and his claim (from the introductory chapter of our study), the *truth is one* and – if we are to apprehend it this way – there is a need to provide the balanced account of the *subjective* (or, subjectively-relative) and *objective* ,dimensions‘ of reality in which we ,find our being‘.

Both propositions, that of Murphy and Ellis as well as that of Nesteruk try to properly relate the subjective realm of our life, as it is spontaneously ,lived‘ and ,experienced‘ on daily basis on the one hand, and the abstract, in a certain sense, ,artificial‘ world of ,objective‘ scientific theories, on the other. These theories - which grew first of all from our curiosity aroused when the ,naïve mode of living‘ in the world was ,interrupted‘ and when the ,philosophical mode‘ occurred by which our existence in the world was thematized as philosophical (and later as scientific) ,problem‘ - constitute the current scientific picture of reality which in turn influences our spontaneous ,communal living‘ and ,self-awareness‘ of our daily life.

Our existence in the world is also reflected in a religious mode – all the world’s religions and have reflections ,codified‘ in their various ,theologies‘ or accounts of the ,ultimate reality‘. The particularity of the Christian faith (and its theology) calls for the universal validity of its truth claims - the truth is one and it should be able to incorporate the various modes of our experience of the world. Thus, it should be possible to outline specifically Christian ,delimiters‘ for defining the searched for ,proper‘ account of truth. Besides *faith*, we can also name *hope*,

love, goodness and beauty as the core values which could serve provisionally as the certain ,criteria‘ for our common quest for truth.

Finally, in our effort to reflect on the Christian faith in order to provide a coherent worldview (or ,Cosmology‘) we are confronted, as we have seen, with a need to address the ,interwoven‘ theological problems pertaining to the ,foundations‘, ,nature‘ and ,subject‘ of theology as well as the role of the general (universal) revelation in the process of knowledge. In a wider philosophical sense we face the problem of the relationship of faith and reason, hermeneutical questions concerning the function of theology and its ,place‘ and ,function‘ in human life as well as its position among the other ,fields of research‘ at academia.

The account of the particular constituents of this ,complexity‘, presented in this chapter, was necessarily provisional, nevertheless, it provided the key questions which need to be raised in order to ,gather the pieces‘ which can eventually be used in our quest for a unified and coherent worldview. Mindful of this ,conceptual questions‘ we now turn to examine (as an illustration) the synthesis of Murphy and Ellis which at the same time provides the ground for the subsequent dialogue with Alexei Nesteruk.

2. The Moral Universe: Nancey Murphy and George Ellis in Dialogue with Alexei Nesteruk

2.1. On the Moral Nature of the Universe: The Synthesis of Murphy and Ellis

„Our purpose is to return to the kind of synthesis that relates the conception of the natural order to the conception of the good life.“¹⁰⁹

This motivation of Murphy and Ellis grew from a simple observation of the problematic features of the modern period. Modernity is not able to relate the affairs of the human world to those of heavens and of the Heavens, but on the contrary it insists on maintaining a logical gulf between them¹¹⁰. They refer to C. P. Snow¹¹¹ and his study depicting the phenomenon of the ‚two cultures‘ separated by the ‚sea of indifference and ignorance‘ – the culture of the natural sciences and that of humanities not able (nor even willing) to communicate with each other - as one of the main features of modernity. Snow envisioned the emergence of the ‚third culture‘ which would be able to bridge the gap in the future. The ‚third culture‘ (term revived by Brockham)¹¹² and used by other thinkers (M. Heller also appeals

¹⁰⁹ Murphy N., Ellis G., On the Moral Nature of the Universe.

¹¹⁰ Ibid., p. 2.

¹¹¹ Snow C. P., The Two Cultures and the Scientific Revolution.

¹¹² Brockham J., The Third Culture: Beyond the Scientific Revolution.

to it in his writings¹¹³) refers to the new awareness and recognition of the benefit of the mutual interaction and interpenetration of the various branches of human knowledge as well as the encouragement for such an enterprise.

The project of Murphy and Ellis strives to synthesize knowledge from various fields, and thus ultimately, relating the ‚relative‘ world of our ‚daily life‘ on the one hand and the ‚abstract‘ study of the ‚facts‘ about the universe (i.e., the growing scientific research) on the other. Since it is an enormous task they are aware that their study is provisional, nevertheless, the importance of it lies in its ultimate purpose to propose the outline for a future research program relating all branches of human knowledge – the natural sciences, the humanities and theology - to each other. Their entire research program is based on the idea of a ‚hierarchy of sciences‘¹¹⁴, presented by Arthur Peacocke in his *Theology for a Scientific Age*. It also includes the idea of *bottom up* and *top down* causation (i.e., the mutual constraints between the lower and upper branches/levels of the

¹¹³ Heller M., Czy fizyka jest nauka humanistyczna?; in: Heller M., *Teologia i Wszechświat*, p. 159-213.

¹¹⁴ The hierarchy itself consists of two main branches - that of natural sciences and that of human sciences. Both of them have roots in physics as the fundamental science, followed by chemistry and biology. In the realm of biology we can trace the split – psychology followed by social sciences constitutes the human branch of sciences whereas ecology/geology followed by astrophysics and eventually, by cosmology, form the branch of natural sciences. On this model Murphy and Ellis build the main argumentation of their research: „What is new in our synthesis is, first, the proposal that the hierarchy be split at the higher levels into natural- and human-science branches, and, second, that the human-science branch should have at its top the ‚science‘ of ethics. It is then possible to see theology as the discipline that completes the both branches – answering ‚boundary questions‘, which arise in both cosmology and ethics, yet go beyond the scope of those disciplines alone.“; Murphy N., Ellis G., *On the Moral Nature of the Universe*, p. XVI.

hierarchy).¹¹⁵ Another pillar of their hoped for ‚synthesis‘ is Imre Lakatos´ conception of *science as a research program*, that is, his specific explication of the logical structures of science and its historical development. (He sees the history of science as the ongoing ‚competition‘ of various research programs).

The ‚research program‘ itself is constituted by the ‚theoretical core‘ (‚metaphysical‘ in nature since it is ‚untestable‘ in principle) which is surrounded by the network of auxiliary hypotheses (of higher or lower ‚status‘) which are employed mainly to ‚test the data‘.¹¹⁶ As already mentioned, the specific contribution of Murphy and Ellis is their decision to treat *ethics* and *theology* as the particular *research programs* within a hierarchy of sciences and to search for (and test) the appropriate position of them among other sciences. The key importance in their synthesis belongs to ethics (which plays the role of a ‚mediator‘). They want to demonstrate how a particular ethical vision – the concept of *kenosis* – fits well in their hierarchy of sciences. It is supported both ‚from below‘ (by social and applied sciences), but also ‚from above‘ by theology. „This ethico-theological position has important implications, in turn, for understanding cosmology and other physical sciences.“¹¹⁷ The concept of *kenosis* – i.e., especially our view of creation as *kenosis*, as an expression of

¹¹⁵ Ibid., p. 4; „Basic physical laws determine what happens at the microscopic level, and hence underlie functioning at the macroscopic levels, through bottom-up causation. The higher levels in turn, however, affect the processes at work at the lower levels through top-down causation.“

¹¹⁶ See more in: Murphy, Ellis; *On the Moral Nature of the Universe*, p. 10-13; Gallus, Macek; *Teologie jako věda*, p. 218-219.

¹¹⁷ Murphy, Ellis; *On the Moral Nature of the Universe*, p. 1.

God's sacrificial love – has potential to play the key role in the dialogue of theology and science.¹¹⁸

The important feature of their synthesis is the significant place of theology in the hierarchy of sciences. They advocate for theology (as the 'research program') to be placed on the top of the hierarchy simply because of the fact that, if properly understood, it could provide the answers for the limit question of all the lower levels and as such be the integrative factor of all knowledge.

Ellis, aware of the tension, provides elsewhere a brief comparison of science and theology, the two traditional 'antipoles', and mentions the main difference between them (which can be related to the traditional philosophical distinction of *episteme* and *doxa*). He claims that both realms (of science and religion/ 'spirituality') are based on the same 'broad methods of intellectual understanding', although applied in rather different data. Science reaches near-certainty, but to do so it concentrates only on very specific quantifiable issues. The result of this approach is its inability to address multifold problems of crucial importance to human existence. For theology, as the rational reflection and understanding of religious issues, much less certainty is available. It is due to the fact that theology uses 'broader classes of data which deal with much wider issues',

¹¹⁸ Both Ellis and Moltmann provide their summary accounts of the use of the concept of kenosis in the dialogue of theology and science: Ellis, *Kenosis as a Unifying Theme for Life and Cosmology*; Moltmann, *God's Kenosis in the Creation and Consummation of the World*, in: Polkinghorne, *The Work of Love: Creation as Kenosis*.

including the key existential problems of real significance to everyday life.¹¹⁹

In spite of this obvious difference and the implicit tension between the world of science and the realm of religion and theology, Ellis and Murphy stress the fact that both, science and theology complement each other. Their research program aims to explicate the ‚nature‘ of the various points of tension between science and theology, and ultimately to show the possible resolutions of those tensions experienced on everyday basis. Since the aim of our study is to deal with ‚the end of all things‘, we will focus on (and would like to stress) the anthropological and teleological (eschatological) aspects in our dialogue with Murphy, Ellis and Nesteruk. The interplay of those aspects (which in a sense summarizes the whole of our project) can be elucidated by Ellis´ own words:

„Given the existence of intelligent life, the *question of meaning* in the individual´s life arises. This relates to ethics which embodies the idea of Telos or purpose (...) Ethics is based on *theology*: so this is *the real basis (telos)* for all activity including science. *Man being created in the image of God* is the ultimate rationale for doing science – we are ‚created co-creators‘. We have a possibility of understanding reality and the mind of God by being creative ourselves – which involves *kenosis* in terms of *giving up preconceptions in order to see what is there.*“¹²⁰

George Ellis believes that the dialogue of science and theology is one of the most important areas of research we can engage in

¹¹⁹ Ellis G., *Cosmology and Religion*, p. 164 cf.

¹²⁰ *Ibid.*, p. 175, 183-184; [emphasis RL].

today. It has the potential to shape the way we see the universe but also how we understand our own existence.

2.1.1. The Science-Theology-Ethics Interrelation and the Nature of Ethics and Theology

The specific feature of Murphy's and Ellis' project, as we have seen, is the importance they ascribe to ethics in the science and religion debate. The stress on ethics grows from their conviction that ethics is tied to science (but not reducible to it), it is 'causally effective' and provides the highest level of values that 'orientate' human goals and choices (science is not 'value-free'). They criticize the strong naturalistic tendencies in science, the attitude which ignores the crucial feature of human agency in the whole of scientific enterprise – the active involvement of questions of 'worth and value' (thus advocating for a fact-value holism). Both anthropic principles in cosmology (as the top layer of the branch of natural sciences) and the issues of 'worth and value' inherently present in the human sciences ('values', contrary to the 'facts', are based mainly on personal choice) raise the fundamental question concerning the 'end' and 'purpose' (i.e. *telos*) of human life, its 'final good'. Murphy and Ellis claim that social sciences with their call for ethics are imbued with certain theological stances which in turn confirm their fundamental claim that theology (or another 'metaphysical layer') is necessary and 'capable' to complement the inherent incompleteness on both sides of the hierarchy of sciences. They encourage us to see human life as a gift and together with S. Hauerwas point out that ultimately '[we] are

creatures with purposes we do not create.¹²¹ Those claims bring about the need to clarify the key questions concerning the nature of ethics and, correlatively, the nature of theology (as the ‚ground‘ for ethics). Referring to Alasdair MacIntyre, they formulate one of their key convictions as follows:

„We believe (...) that there is a universal capacity among human beings to perceive, even if dimly, clues about the transcendent moral order. This transcendent moral order is dependent upon a transcendent purpose – and thus a purposer. Ultimately, then, ethics is best understood as having a religious basis.“¹²²

Murphy and Ellis claim that they are ‚moral realists‘, which means that they believe that the true nature of ethics is discovered and not invented by human beings. Thus, the study of ethics has direct implications for our understanding of the universe and our position in it. W. Stoeger, an astrophysicist (and Ellis‘ colleague from the Vatican Observatory ‚study groups‘) provides the following evaluation of Ellis‘ contribution to the dialogue between science and theology: „He has demonstrated how genuine, religious and theological perspectives can help us understand the constitution and character of our universe in terms of ‚kenosis,‘ or self-sacrifice in love“. ¹²³ Ellis‘ treatment of the anthropic principles shows that our universe seems to be specifically suited for advancing that

¹²¹ Murphy N., Ellis G., *On the Moral Nature of the Universe*, p. 110.

¹²² *Ibid.*, p. 6.

¹²³ Prof. George F. R. Ellis 2004 Templeton Prize Laureate, p. 4; in: *Templeton Prize Chronicle*.

(kenotic) attitude and practice as a precondition for its ‚harmonious functioning at every level‘.

Ellis and Murphy argue that the nature of morality is *kenotic*. They offer the following description of the core of ethics: „[I]t must be a kind of ethics involving letting go of one’s own interest on behalf of others, being ready if necessary to sacrifice one’s own interests for them, even on behalf of an enemy.“¹²⁴ They suggest that this principle of self-renunciation (and thus non-coercion) is deeply anchored in the structure of the universe, in ethics and in all other aspects of our lives. Here a reference should be made to our discussion about scientific naturalism, mainly to D.Griffins conclusion that the *minimal* requirement of science is the avoidance of supernaturalism in any form on the side of theology. The principle of *kenosis*, advocated by Ellis and Murphy, would be the needed ‚refashioning‘ of the older Christian doctrine, able to incorporate, on the one hand, the key theological truths and assumptions (and thus ‚capturing‘ the core of Christ’s mission and message). On the other hand it would be well compatible with the basic requirement of science, this is, its methodological ‚scientific naturalism‘, excluding only the supernatural ‚violating‘ of the ‚causal order‘ of the world, but not expelling the idea of Divine creation and provision whatsoever. *Kenosis* also provides the answer for our search for the ultimate purpose in life: „The hard core of our program states that to become this sort of person, to develop this moral

¹²⁴ Ibid., p. 8.

character, is not merely a means to an end, but is the central goal of human life."¹²⁵

2.1.2. Kenotic Conception of God and the Dialogue of Theology and Science

Our discussion above brings us once again to pose the question of the nature of theology, this time specifically by questioning the relationship of ethics and theology in order to provide a viable ‚conception of God‘. Ellis and Murphy need to ‚ground‘ their ethical vision and ask for the proper ‚theory of God‘ which would imply (and thus support) their ethical conception: „One of the premises (...) is that an ethical core theory, qua ethics, can only be confirmed from above, in that it follows from a theological or metaphysical conception of ultimate reality.“¹²⁶ They refer to a number of theologians and scholars who either employ the concept of kenosis explicitly to describe the nature of God, or whose understanding of God is compatible with the view of God’s self-limitation and self-sacrifice. In all cases, this understanding of God seems to differ significantly from the view of traditional theism. Arthur Peacocke’s view on the kenosis of God is mentioned with its specific eschatological (and ‚epistemological‘) aspect:

„God voluntarily accepts limited knowledge of the future, due to the creation of free agents and open-ended processes whose future states

¹²⁵ Murphy N., Ellis G., *On the Moral Nature of the Universe*, p. 139.

¹²⁶ *Ibid.*, p. 173-174.

are unpredictable. The expression of God in the restricted human personhood of Jesus' is a revelation of the perennial self-limiting, self-giving relation of God to the created world."¹²⁷

Another important reference is made to Jürgen Moltmann. In his book *The Crucified God* he aims to pose the question of the character of God and rethink it along the lines of God's 'solidarity' with 'the human race' and the rest of the created universe - God's involvement in the suffering of all creation. Elsewhere, Moltmann also questions the concept of *kenosis* of God and explicates it from the perspective of the doctrine of incarnation:

„The kenosis is realized on the cross (...) God becomes the God who identifies himself with men and women to the point of death, and beyond. The incarnation of the Son is not something transitional. It is and remains to all eternity. There is no other than the incarnate, human God who is one with men and women. The *outward incarnation* presupposes *inward self-humiliation*. That is why the incarnation intervenes in the inner relations of the Trinity."¹²⁸

Nevertheless, the main 'theological' argumentation (and the core of the theological research program) of Murphy and Ellis is based on the writings of John H. Yoder, whose theology is proposed to be tested (as hypothesis) by theological analysis, but also against the natural and human branches of the hierarchy of sciences with a probing question concerning the plausibility of

¹²⁷ Ibid., p. 175.

¹²⁸ Moltmann J., *The Trinity and the Kingdom*, p. 119.

Yoder's proposition and its ability to provide some links to the overall structure of human knowledge. The careful analysis of Yoder's theology is provided and the practical implications drawn concerning the position and role of the church in the world, including its search for the practical wisdom which can be applied in political involvement showing the responsibility for the life of the *polis*. It is beyond the scope of our study to present all the nuances of Yoder's theology, but we will limit ourselves to stress the eschatological aspects as well as the cosmological dimension (and ,impact') of his theology:

„The new aeon was inaugurated by Jesus; Jesus is a mover of history, not merely a teacher of how to understand history's moral ambiguity. The meaning of the history is found in the work of the church; the church by its obedience is used by God to bring about the fullness of the kingdom, of which the church is the foretaste. The resurrection of Jesus is God's guarantee that the new aeon will ultimately prevail. This entails that (...) the cross and not the sword, suffering and not brute power determine the meaning of history. One need to choose between agape and effectiveness.“¹²⁹

Beside the theological argumentation the question is posed whether the kenotic conception of God (,revealed' in Jesus' cross and resurrection) is supported ,from below', i.e., whether we can find some confirmation for it in the field of scientific cosmology. Yoder refutes the potential false accusations of the so-called ,God of the gaps' reasoning. Although it may appear that we

¹²⁹ Murphy N., Ellis G., *On the Moral Nature of the Universe*, p. 193.

begin with the mechanistic universe and then ,look for cracks and chinks where a little creative freedom might sneak in‘ – and which can be attributed to God - it is not the case. On the contrary, it is necessary to articulate the panentheistic vision of the world. Yoder confesses that the ,deterministic world‘ should be seen as ,enclosed within‘, and smaller than, ,the sovereignty of the God of Resurrection and Ascension‘. „*Cross and resurrection‘ designates not only a few days‘ events in first-century Jerusalem but also the shape of the cosmos.*“¹³⁰

Murphy and Ellis conclude that this particular view of God can answer the ,mystery‘ of the law-like, ,provident‘ universe (allowing the emergence of the intelligent life) and the issue of ,human freedom‘ (as explicitly present in ,volitional‘ character of the human sciences but also implied by the ,anthropic issue‘ in scientific cosmology, as we will see below in our discussion of Ellis and Nesteruk). They refer to the ,hidden nature‘ of ultimate reality and can eventually speak of the *moral character of the universe which is based on its ultimate purpose*. Theology, placed on the top of the hierarchy of sciences plays the needed ,teleological‘ role in our search for understanding. The fundamental convictions of their research can be summarized as follows:

„We claim (1) that certain aspects of reality require the context of a vision of the purpose of the whole in order to be fully intelligible, and (2) that the context of the whole, most adequately addressed

¹³⁰ Ibid., p. 201.

theologically, provides an intellectual ‚bridge‘ whereby the natural sciences and the human sciences (including ethics) mutually illuminate one another.“¹³¹

The kenotic view of the nature of ultimate reality is, according to Ellis and Murphy, the needed ‚framework‘ for developing a *coherent worldview* with a deep consonance between the world studied by science, on the one hand, and the theological experience of reality, on the other.

2.1.3. Theology, Science and Academia

The changes of worldviews throughout the ages resulted in changes of the structure of societies and the functions of their particular ‚institutions‘. The changes had its impact also on theology and its place among other sciences at university. Once the ‚queen of all sciences‘, theology was ‚condemned‘ to play – in the name of secularization of the scientific investigation - the marginal role at academia since the eighteenth century.“¹³² This observation touches other important questions related to the research program of Murphy and Ellis: How should theological studies be treated among other scientific fields of research and what would be the implications of this question for the dialogue of natural science and theology? Or, in other words, we need to question the ‚scientific‘ nature of theology.

¹³¹ Ibid., p. 220.

¹³² Gallus P., Macek P, *Teologická věda a vědecká teologie*, p. 57.

Contrary to the modern development and its tendency to disrespect theology and its role at university, Murphy and Ellis argue for the critically important role theology could play there. As it was already mentioned, scientific explanation has limits and many scientists became well aware of it. At the same time, the problem of *meaning* comes to clear focus, since it is implied when the presence of limits is felt. In this respect we are confronted with the issue of *telos* as the ultimate limit. Here we need to appeal to the realm of theology, they argue, and inquire and reflect on the limit questions of ‚expectations‘ and ‚hope‘ which are (latently) present and surface whenever the practical question of ‚what should we aim at‘ or ‚what could/should be accomplished‘ in our study of the universe is raised. The importance of this issue could be amplified if we refer once again to the fateful separation of ‚facts and values‘ (or nature and grace) prevalent since the modern times. This modern attitude is criticized by Murphy and Ellis who propose a ‚holistic epistemology‘ aiming to bridge this gap, to mend the distorted human understanding of reality. Let us refer to L. Dupré again and to his careful description of the problematic role of (natural) theology as understood by the ‚disintegrated‘ modern mind, treating nature as the ‚self-contained‘ reality.¹³³

¹³³ Dupré L., *Passage to Modernity*, p. 181; „Natural theology began as an earnest attempt to restore to a concept of nature a transcendent orientation that had been severed from it (...) Despite its lack of success, natural theology continued its efforts to provide a ‚foundation‘ to faith (...) In this new religious architecture the upper structure – the so-called supernatural – was assumed to rest on a base of nature, but that base was conceived as detached from the superstructure.“

In the light of this ‚detachment‘ of nature from its transcendent ‚ground‘ we need to recall the tendencies of Enlightenment to dissociate ethical claims from religious traditions whatsoever and found morality solely on human reason. The modern ethicists were not able to provide adequate answers in the quest for ‚the end‘ and ‚purpose‘ (telos) of human life precisely because of this dissociation.¹³⁴

This important observation prepares the ground for the further interaction of George Ellis with Alexei Nesteruk and the comparison of their concepts of the synthesis of science and theology. Both of them stress the historical dimension of human knowledge and try to see theology (or the sciences) not ‚statically‘, but as parts of the ever-developing ‚horizon‘ of human insight. Stressing the dynamic element of all human knowledge, including theology, allows them to see all branches of human knowledge as the various traditions of ‚human understanding‘, ever-changing and interacting in their historical development.

It is important to stress once again that the specific feature of the proposition of Murphy and Ellis - their treatment of science, ethics and theology as distinct (but epistemically equal) *research programs* within the *hierarchy of sciences* - opens the significant discussion about the ‚scientific character‘ of theology, or more precisely, the possibility (and ‚limits‘) of our understanding of

¹³⁴ „Modern philosophical ethicists were surprisingly traditional in their views of the content of morality (although they took predominantly Christian morality to be universal human morality), but what *they gave up* in rejecting the authority of the Christian tradition was a *concept of the human person* that was necessary for justifying those traditional moral precepts.“; Ibid., p. 104 [emphasis RL].

theology as science. As an ongoing debate, examining the nature of theology, it can contribute distinctively to the much needed interdisciplinary involvement of theology at university, yet without losing its ‚theological identity‘ and ‚particularity‘. Studying all the branches of human knowledge as different ‚streams of human understanding‘ - as particular traditions (in their development and mutual interaction) - is a ‚methodological tool‘ useful for the evaluation of each area of human knowledge as well as relating each ‚part‘ to ‚the whole‘. With their insistence on the ‚fact-value holism‘ they want to stress the fundamental interdependence of the natural, human and transcendent ‚constituents‘ of human existence and knowledge. The true knowledge cannot be reached if we only deal with ‚the parts‘, but tend to ignore ‚the whole‘.

Another important presupposition of the research of Murphy and Ellis, as we have seen, is their decision to hold to both ‚bottom-up‘ and ‚top-down‘ causation. They treat theology as the upper level ‚perfecting‘ both – the natural and the human – branches of the hierarchy of sciences. It is important to note that the top-down causation occurs when the human volition (‚intentionality‘) is involved (predominant in all kinds of ‚motivational studies‘ which in turn call for some ethical grounding). This obviously has some important implications for the dialogue of theology and the sciences. First of all, there is a need to acknowledge the fundamental role of ethics in all branches of science and promote the ethical reflection in the fast-developing scientific enterprise. Furthermore, the interaction of both realms of knowledge - the dialogue of science

and theology - can be initiated or approached either ‚from above‘ (from the side of theology) or ‚from below‘ (from the realm of natural science).

Nevertheless, this conclusion also points to the potential danger of overemphasizing either the role of theology in the dialogue or vice versa, seeing science as the final arbiter of truth. Thus, various propositions of different models of science-theology dialogue abound whose main aim is to reduce theology solely to the needs of the current scientific picture of reality and thus ‚stripping‘ theology from all the ‚inexplicable‘, transcendent elements. But we are also aware of the other extreme, the conceptions aiming to explain away all of the ‚inconvenient‘ scientific discoveries which cannot be easily incorporated in the traditional theological worldview. The proposition of Murphy and Ellis (i.e., the interaction and cooperation of various scientific, ethical and theological research programs) aims to provide a coherent view of their relationship and to treat theology as ‚equal‘ among other sciences at academia. Nevertheless, treating theology as science is not without problems and needs to be complemented with other, alternative, views of the ‚nature of theology‘. The acknowledgement of historical, cultural and intellectual limitations of all ‚traditions‘ of human understanding (both scientific and theological) leaves us with an essential claim for an ‚open attitude‘ to knowledge.

Finally, for the sake of easier orientation in the subsequent dialogue with Ellis, we would like to provide a brief description of the core of Nesteruk’s synthesis. As will be argued later, Nesteruk understands faith and reason (theology and science) as

two different intentionalities in one human spirit (which are, on the surface, in the state of ‚split‘ experienced as the tension between the ‚traditions‘ of science and theology). Nesteruk is mainly interested in the explicating of the ‚foundations of science‘, that is, its presuppositions, which leads him eventually to the fundamental stance of his research, namely, that *science is the human articulation of the world*.

The main emphasis is laid on the *human person* as the ‚creator of science‘ and thus the dialogue should not be centered around the ‚natural‘ core of the world. This allows Nesteruk to study the structures of science (he stresses the importance of scientific theories and the ‚apophatic‘ use of them in the dialogue of theology and science) in order to disclose the presence of human ‚intentional‘ subjectivity (human freedom), created in the image of God, behind all scientific theories and ideas. Nesteruk demonstrates that human subjectivity works in the rubrics of existential faith, which cannot be articulated by science, but which is at place (but hidden behind and ‚unseen‘ by the scientific theories) in all contexts of human activity and understanding, in ‚reality‘ of human life as ‚existence in the world‘. This difference in intentionalities (or attitudes) constitutes an ‚initial moment‘ in Nesteruk’s research:

[Our] aim is to search for their reintegration as mediation between their divisions on the *level of morality* (...) we demonstrate our affinity *not to the bottom-up* approach to the science–religion dialogue, which is so popular in the West, but to its opposite – *top-down*. This means in turn, that in the context of mediation between science and theology our approach to theology will not be based on the way of ascension from

empirical realities to the Divine, because it never leads us to existential faith in the living God."¹³⁵

Nesteruk follows Edmund Husserl, whose concern was to provide a philosophical account (in a strictly scientific manner) of the 'foundations' of science, both of its 'natural' and 'human' branches, dealing respectively with their 'naturalistic' and 'personalistic' attitudes. Husserl criticized the excessive 'objectivistic' tendency of science (in all of its branches) and called for a more balanced attitude to science. He was concerned with the problematic relationship of *doxa* of our daily life and the *episteme* of the scientific picture of reality. Nesteruk aims, following Husserl, to deal with the chasm between 'the world of our daily experience' and the realm of abstract scientific theories detached from 'the world of persons'. He appeals to the mediatory role of philosophy and stresses especially the ethical function of it in the dialogue of theology and science, thus referring to the concept of the '*infinite tasks of reason*', the idea developed by Husserl in the last systematic 'summary' of his phenomenological philosophy - the important, but neglected book '*The Crisis of European Sciences*'. In the following paragraphs we will engage in the dialogue with Ellis and Nesteruk and examine more closely the 'human face' of our universe and the interplay of the 'languages' of *causality* and *intentionality* in modern cosmology. Thus, the explication of the basic assumptions of Nesteruk's synthesis constitutes the

¹³⁵ Nesteruk A., *The Universe as Communion*, p. 106 [emphasis RL].

content of the rest of this chapter and will be unfolded in a critical dialogue with Ellis, focusing especially on the so-called ‚anthropic reasoning‘ in cosmology as well as on the nature of cosmology itself.

2.2. George Ellis and Alexei Nesteruk on the Anthropic Principles

*When thinking about science as deciphering the Mind of God, we should not forget that science is also a collective product of human brains, and the human brain is itself the most complex and sophisticated product of the universe. It is in the human brain that the world’s structure has reached its focal point – the ability to reflect upon itself.*¹³⁶

The aim of this section is to focus on the most important philosophical (and theological) implications of some basic problems posed by modern scientific cosmology. Namely, the stress will be laid on the ‚mystery‘ of emergence of intelligent life and its prospects for survival in the remote future of the universe. Our account will follow the argumentation of George Ellis and Alexei Nesteruk who examine contemporary scientific cosmology and focus on those of its features which demand a higher level of explanation. The following tension needs to be addressed: On the one hand the intelligent human being and its brain is the product of the universe, the cosmic evolution (and thus determined by the nature of the physical laws), but on the

¹³⁶ See M. Heller’s statement at: www.templetonprize.org/previouswinners/heller.html.; p. 3.

other hand there is still a considerable ‚discontinuity‘ felt when we reflect on the problem of human ‚free will‘, the uniqueness of human consciousness and the human ability to reflect upon itself while ‚constituting‘ the universe. The entire discussion has to be commenced with a reference to the evolutionary nature of our universe, to The Big Bang model of cosmology. This theory of the origin of our universe – now widely accepted - stands at the beginning of contemporary physical cosmology which is basically a twentieth century science.

The emergence of ‚modern‘ scientific cosmology is associated with the discovery of the expanding universe (made by Edwin Hubble around 1930)¹³⁷, a process which conceivably started a finite time ago. Being in a state of expansion the universe does not have to be ‚eternal‘, as was the predominant view before Hubble´s discovery, but can have its beginning in time ($t=0$). The Big Bang theory, based on Hubble´s discovery (and confirmed in 1965 by the cosmic microwave background radiation), became the prevailing cosmological model of the universe.¹³⁸ Nevertheless, there are still some competing, alternative theories to the Big Bang in which there is no place for a real ‚beginning‘

¹³⁷ „The development of the Big Bang cosmology is closely linked to that of the expanding universe, but there is no one-to-one correspondence between the two theories. Models of the expanding universe predate the first versions of big bang cosmology, and rival theories such as steady state cosmology also accept a universe in expansion, a concept that does not necessarily imply a cosmic beginning.“; Kragh H., *Big Bang Cosmology*, p. 371; in: Hetherington N., *Cosmology: Historical, Literary, Philosophical, Religious, and Scientific Perspectives*.

¹³⁸ See more on the history of contemporary physical cosmology in: Longair M.S., *The Brief History of Cosmology*.

and the ‚end‘ of the universe (e.g. Hoyle´s and Gold´s steady state theory or Hawking´s and Hartle´s no-boundary universe).

The Big Bang cosmology is welcomed by some theologians and philosophizing scientists (inclined to theology) as a theory which is not contradicting the traditional Christian doctrine of *creatio ex nihilo* and use it as a support of traditional theism (The Big Bang theory supports the claim that the universe is finite which in turn ‚confirms‘ the Creator). Although it is necessary to avoid the naïve, straightforward ‚theological‘ interpretations of The Big Bang theory, it is indeed appealing to search for a certain convergence between theology and cosmology in their quest to provide the final answer to the perennial and troubling question ‚why does the universe exist at all?‘

Thus, there is a need for a responsible theology which is working in the light of the discoveries made by the sciences, carefully evaluating the cosmological theories. In that respect we can refer to R. J. Russell who is concerned with the problem of the relationship between the contingency of creation and the Big Bang cosmology and wants to elucidate this problem. He encapsulates the implications of The Big Bang theory for creation theology by posing three questions:

„(1) *What about the beginning?* (2) *Is the universe finite?* (3) *Is the universe necessary?*”¹³⁹ Russell also stresses the growing

¹³⁹ Russell R. J., *Cosmology from Alpha to Omega*, p. 39.

interest of theologians in (and the relevance of) the concept of *creatio continua* in their dialogue with scientists.¹⁴⁰

All of the features of contingency of the universe are closely related to the problem of the ‚anthropic principle‘. With the basic framework of The Big Bang theory (and aware of its implications for theology of creation) we turn to the main issue of the dialogue of Ellis and Nesteruk - the so called *anthropic question* which arises when we enquire about why the properties of the universe are such that they provide suitable conditions for the emergence of intelligent life. Only particular initial conditions and specific physical laws allow the existence of intelligent life in the universe, thus the universe appears to be ‚fine-tuned‘ for emergence of life.

The ‚anthropic question‘ can be aptly illustrated by Freeman Dyson’s words: „*The more I examine the universe and study the details of its architecture, the more evidence I find that the universe in some sense must have known that we are coming.*“¹⁴¹ Cosmologists have developed two main ‚scientific‘ explanations of the existence of self-conscious life in the universe – *weak* and *strong* versions of *anthropic principle* (WAP and SAP) and there are also several modifications of those principles, from which we

¹⁴⁰ „In *ex nihilo* theology the concept of contingency tends to denote finitude and purpose while the *continua* tradition focuses attention on the contingent in the emergence of novelty and an orientation toward future fulfillment (...) [*C*]reatio *ex nihilo* tends to emphasize God’s transcendence of the world, while *creatio continua* underscores the presence and immanence of God at the heart of nature and human history. Yet in both traditions we find the total dependence of all-that-is on God.“; *Ibid.*, p. 36 [emphasis RR].

¹⁴¹ Dyson, *Disturbing the Universe*, p. 250.

will also focus on the *final* (FAP) and *participatory anthropic principle* (PAP) in the following discussion with Nesteruk.

Turning to Barrow and Tipler and their explanations, the WAP can be defined as follows:

„The observed values of all physical and cosmological quantities are not equally probable but they take on values restricted by the requirement that there exist sites where carbon-based life can evolve and by the requirements that the universe be old enough for it to have already done so.“¹⁴²

Thus, the WAP tries to answer the first question about our position in space and time mentioned above. It can be reformulated in these simple words: Here and now we are observing the universe and we see it this concrete way, because it would not be possible to live in any other location in space and time. We say that our existence is the explanation of those specific properties of the universe which we observe. Michal Heller points out that this is not a causal sense at all, explaining that our existence is not the cause of the specific properties of the universe in which we live as ‚necessary‘ observers.¹⁴³

The SAP, on the other hand, deals with the existence of intelligent life itself and attempts to explain it in terms of necessity: *"The Universe must have those properties which allow*

¹⁴² Barrow, Tipler; *The Anthropic Cosmological Principle*, p. 16.

¹⁴³ Heller concludes, that „we are the factor which is a consequence of cosmic evolution; but for mankind to be able to come into existence, cosmic evolution had to bring the universe into a particular state. Formulated in this way, the weak anthropic principle is a typical selection principle. We reject all the other models as incompatible with observation.“; Heller, *Ultimate Explanations of the Universe*, p. 80-81.

life to develop within it at some stage in its history."¹⁴⁴ The strong anthropic principle is, according to Heller, another example of 'reverse in reasoning'. From the consequence - that is from our existence in the universe - to the necessary 'environment', the right initial conditions and the right values of the constants and other parameters. Ellis concedes that the SAP was not widely accepted nor followed by many important cosmologist due to the fact that it is neither testable nor falsifiable, and thus it is not a scientific argument but preferably a philosophical one. Let us add that much criticism is raised against SAP as a *teleological notion* with its tendency to describe the existence of life as a *necessary condition* for the constants of physics and other features of the observable universe. Nevertheless, the anthropic principles brought about a heated wave of discussion and many participants were compelled to turn to metaphysics in their attempts to provide some viable solutions.¹⁴⁵ Ellis concludes, that the anthropic principles have not provided a satisfactory answer. The purely scientific approach could not lead us towards the needed explanation of the 'ultimate causation'.

Nonetheless, we can ask whether the fine-tuning of the universe could point to a new argument from design. Noting that such questions are beyond the scope of science Ellis attempts to understand those fundamental questions raised by cosmology and lists five basic possibilities of how to answer the question of

¹⁴⁴ Barrow, Tipler, *The Anthropic Cosmological Principle*, p. 21.

¹⁴⁵ Heller, *Ultimate Explanations of the Universe*, p. 81ff.

ultimate causation in cosmology: random chance, high probability, necessity, universality and design. After a brief evaluation of each possibility he contends: „Comparing the different possibilities, it is difficult to avoid the conclusion that the design concept is one of the most satisfactory overall approaches, necessarily taking us outside the strictly scientific arena.“¹⁴⁶ With this observation Ellis takes the position claiming that life, self-conscious human subject, is a unique feature of the universe which calls for a special treatment and a wider framework of explanation is needed.

This brings us to engage in dialogue with Nesteruk who also discusses similar questions, specifically he is concerned about the problem of the validity of the anthropic principles, relating them to emergence of human beings in the universe and the incarnation of the Logos of God in space and time.¹⁴⁷ Nesteruk starts by observation that the universe is anthropic now, but it was anti-anthropic in the past and it will not be anthropic in the future. Thus, the existence of life in the universe is finite, which leads him to talk about the phenomenon of humanity as the *humankind-event*. He explains the significance of such understanding of humanity:

„What is important in using the word *event* as applied to the phenomenon of humanity is that this event is not inherent in the

¹⁴⁶ Murphy, Ellis; *On the Moral Nature of the Universe*, p. 59.

¹⁴⁷ The careful account of this important context in which Nesteruk develops further the anthropic discussion could be found in his recent study - „*Universe, Incarnation and Humanity: Theology of Thomas Torrance and Modern Cosmology*“ (2016).

cosmological background (there is no ultimate causal link between cosmology and anthropology); it depends on it – that is, the phenomenon of life is conditioned by physics – but only in terms of the necessary conditions.¹⁴⁸

Nesteruk asserts that the phenomenon of intelligent human life in the universe, understood as a hypostatic event¹⁴⁹, is contingent on supernatural factors which point towards the uncreated realm, towards God. This concept should also be understood as the specific approach of the Eastern Orthodox theology to the widely discussed issue of God's presence and activity in the world, that is, an account of panentheism from the Eastern Orthodox perspective.¹⁵⁰ He follows Thomas Torrance who points out the need to include conscious mind as an indispensable factor in all scientific equations. Nesteruk's approach to cosmology can be summarized as follows:

„Modern cosmology, if seen in a wide philosophical and theological context, provides indirect evidence for the contingency of the universe on nonphysical factors, as well as its intelligibility, established in the

¹⁴⁸ Nesteruk, *Light from the East*, p. 199 [emphasis AN].

¹⁴⁹ Nesteruk provides further explication of his understanding of the notion of an *event*: „An event means not just a happening in the chain of causal physical factors; rather, it is by itself the constitutive element for physical reality, something that makes the undifferentiated matter ‚the reality‘. Thus an event is a hypostatic notion, which is called to constitute the elements of nature in space and time. Any event by definition is contingent upon some agency that is not entirely rooted in the natural.“; *Ibid.*, p. 208.

¹⁵⁰ Nesteruk's specific understanding of the presence of God in the universe and the universe in God is expressed as the inherence (subsistence) of the universe in the person (hypostasis) of the Logos of God (hence the ‚enhypostatization‘ of the universe). See more in: Nesteruk, *The Universe as Hypostatic Inherence in the Logos of God: Panentheism in the Eastern Orthodox Perspective*; in Clayton, Peacocke; *In Whom We Live and Move and Have Our Being. Panentheistic Reflections on God's Presence in the Scientific World*, p. 169-183.

course of the humankind-event, which is rooted in the Logos of God and detected by human beings through the logoi of creation."¹⁵¹

Nesteruk wants to relate his understanding of the humankind-event to the previously discussed anthropic principles. He points out that although the WAP tries to emphasize the fact that there are some necessary conditions making the emergence of life possible, it doesn't attempt to maintain causal relation between humankind-event and the structure (special properties) of the universe. Thus it only provides the explanation of the necessary background for the existence of life, but it cannot solve the issue of the sufficient conditions – the fact that the potentiality of life becomes reality. Indeed, physics (and biology) can hardly give an account of personal dimension of human life, it can merely speculate about the emergence and nature of human consciousness (soul), the 'mystery' of the personal existence of human beings stays out of the scope of physics and biology.

The same can be said about the SAP which only refers to the natural aspect of human life, but the question of consciousness is not dealt with explicitly. Although the universe seems to be physically designed to contain conscious biological life, it is still unclear why this life occurred, what was the ultimate causation of the emergence of life. The existence of intelligent life entails a question about the 'foundation' of life (both the 'manifestation' of the universe itself and the presence of human beings in it

¹⁵¹ Ibid., p. 194.

refer to their common ground in their ‚otherness‘) and this observation brings Nesteruk to a simple conclusion, that the discussion about the necessary conditions for life in the universe must not be separated from the issue of the sufficient conditions, ‚that the genuine anthropic principle must consist of both scientific and theological insights, which would open a route to the demonstration of the contingency of human existence in the universe.‘¹⁵²

This eventually leads Nesteruk to see that the issue of humankind-event and all attempts of cosmology to explicate it by anthropic reasoning are linked to the ‚mystery‘ of the origin of personal intelligent life in the *imago Dei* viewed in the whole of God’s economy of salvation. It follows that besides the physico-biological explanation of life we also need a philosophical and theological dimension, which in turn means that the humankind-event can only be understood in the light of creatio ex nihilo, incarnation and resurrection. Nesteruk also points out that the SAP does not address the future of human life in the universe and the most it can declare about the structure of the universe (including intelligent life) is to assert something about its past (which is contingent on the present condition), but nothing about its future. Nesteruk concludes that both WAP and SAP can be seen as the evidence of the fundamental contingency integral to cosmological theories which calls for further metaphysical explanation.

¹⁵² Nesteruk, *Light from the East*, p. 202.

The issue of the future of the intelligent life in the universe brings us to the final anthropic principle (FAP), the extension of SAP, which is the most speculative form of all versions of the anthropic principle. Barrow and Tipler saw a little sense in their conclusion about the necessity of emergence of life (SAP) without addressing the potential eventual extinction of that life. This observation lead them to propose the the *final anthropic principle* (FAP) which can be summarized as follows: „*Intelligent information-processing must come into existence in the universe, and, once it comes into existence, it will never die out.*“¹⁵³ This reasoning was developed further by Tipler in terms of ‚Omega Point theory‘ (theory of ‚evolving God‘ inspired by the vision of Teilhard de Chardin) or the ‚physics of immortality‘ in his controversial book of the same title.¹⁵⁴ Contrary to the prevailing cosmological predictions describing the end of the universe either as the ‚big crunch‘ (fiery collapse) or the ‚big freeze‘ (or the heat-death), Tipler postulates the eternity of life in the universe, although understood in a highly reductionistic way as the running computer software.

Precisely here lies Nesteruk’s main objection – it makes the intellectual dimension of human life purely epiphenomenal: „The presence of intellect and consciousness, even though they are treated in a reductionist way as epiphenomena of physical and biological function, do not explain and justify the aspect of

¹⁵³ Barrow, Tipler; *The Anthropic Cosmological Principle*, p. 23.

¹⁵⁴ Tipler F., *The Physics of Immortality* (1994).

personhood in human existence, that is, genuine human being as personified existence of human beings in different bodies.¹⁵⁵ Nesteruk is mostly concerned with the theological implications of FAP for both the universe as nature and for human beings understood as persons. Tipler's understanding of evolution of life - eventually ,merging' in union with ,evolving god' - assumes, according to Nesteruk, the annihilation of the world (i.e., the ,sensible' creation is fully replaced by the ,intelligible' forms culminating in Omega Point). The same can be said about Tipler's understanding of human beings as processing machines (human soul as software) – the personal dimension of human existence lost in ,destruction' of the *imago Dei* in man. Nesteruk criticizes this exaggerated naturalistic explanation and interprets it as an evidence of a serious spiritual crisis of scientific thought leading eventually to desacralization of nature and the loss of the human-divine image.

Nesteruk also addresses the issue of the intelligibility and meaning of the universe and for that matter employs another extension of SAP, namely, Wheeler's proposition of participatory anthropic principle (PAP), which can be summarized in a simple sentence: „*Observers are necessary to bring the universe into being*“.¹⁵⁶ Nesteruk interprets it in terms of *enhypostasization* of the universe, which simply means that the universe is articulated by intelligent human beings. In others words –

¹⁵⁵ Nesteruk, *Light from the East*, p. 240.

¹⁵⁶ Barrow, Tipler; *The Anthropic Cosmological Principle*, p. 22.

without us, human beings (cosmologists studying the universe, collecting data and expressing it in the language of scientific theories) there is no universe at all. In his concept of PAP Wheeler was trying to ‚look behind‘ the scientific theories and concepts questioning their meaning in ontological sense (i.e., meaning of objects and the intelligibility of the universe in general).¹⁵⁷

This approach was criticized as highly controversial, because it was challenging the natural scientific attitude and thus eventually ended with a label of ‚non-scientific theory‘ for its ‚mystical‘ connotations. Nevertheless, Nesteruk sees the importance of Wheeler’s proposition, since life or mind and meaning are central to its perspective (and not accidental epiphenomena as is the case with the other mutations of SAP). Nesteruk also mentions two other key elements of Wheeler’s concept: (1) his ambition to deduce the ‚meaning‘ and ‚reality‘ of the universe in strictly physical terms; and (2) the presupposition of a network of observers who establish the intersubjective meaning of what is called physical reality. The whole PAP may be regarded as trivial, but Nesteruk wants to point out the importance of the following Wheeler’s claim: „[T]he universe as the ‚world of existences‘ does not exist prior to the

¹⁵⁷ „Wheeler, after a long intellectual evolution working in physics, attempted to approach physical reality not as something ‚out there‘, which is passively described by observers, but to see it as a genesis through conscious dialogue between observers-participants and physical reality, so that the universe emerges as a special articulation of the relationship between human intelligence and physical reality“; Nesteruk, A ‚Participatory Universe‘ of J.A. Wheeler, p. 416.

phenomenon of humankind in an ontological sense (...) the universe thus is seen as a participatory universe, whose existence is relational upon the existence of intelligent observers.¹⁵⁸

In conclusion, even PAP cannot - if viewed from the theological perspective - provide a satisfactory (sufficient) explanation of human phenomenon. For even in Wheeler's concept, human consciousness is eventually an epiphenomenon of the network of communication (of the community of observers) based solely on physical grounds, whereas the theological conviction concerning the origin of human beings in the Logos of God (understood as foundation of both human consciousness and the intelligibility of the universe) remains untouched.

Finally Nesteruk addresses the subject of the 'foundation' of life itself, that is the question why the humankind-event has taken place in the universe and what is the ground of human 'ability' to explore and articulate the universe. Here he relates the humankind-event to the concept of Christ-event. The central point is that all human beings bear the image of God and that in the incarnation the whole of humanity was recapitulated by Christ. This in turn makes possible for human beings to personalize the universe, that is, to give meaning to it not only in 'naturalistic' way (the tendency of the anthropic reasoning) but also from the perspective of divine image in man. *„It is through knowledge and creative transformation that human beings*

¹⁵⁸ Nesteruk, Light from the East, p. 222.

participate ontologically in affirming (...) things in the universe“.¹⁵⁹ Thus, Nesteruk sees the link between the origin of the universe, its structure and the phenomenon of man.

Stressing the importance on the incarnation Nesteruk follows Torrance for whom the connection between the problem of space in the universe and the the theological concept of incarnation of the Logos of God plays a fundamental role (in establishing the epistemological basis for theology and its further interaction with the sciences). Nesteruk strives to show ,that space and time are relational entities whose concepts reflect the contingent rationality of the world, which depends on the transcendent God-Creator (...) that the relational nature of space (...) points toward an ontology of created things and human beings that is relational upon the Logos of God (...) is inherent in the hypostasis of the Logos.¹⁶⁰ Addressing the importance of the Incarnation, God’s descension to humankind, Nesteruk also points out ,the reverse side‘ of it - man’s ascension to God (deification) - and explicates its temporal dimension, eschatological expectation of the age to come. In the context of the whole economy of salvation Nesteruk sees humanity not simply as a purpose of creation (which could be the assertion of the SAP), but he wants to elucidate the role of humanity in salvation of the universe: „It [humanity] can be understood only in the context of the promise of God for its salvation as

¹⁵⁹ Ibid., p. 227.

¹⁶⁰ Ibid., p. 230-231.

constituting the locus point of the meeting of God and God's creation, as the mediating agency that is supposed to bring the whole universe through its knowledge to the new creation."¹⁶¹

It is important to realize at this point what is implied in Nesteruk's statement above: The fact that there is no particular goal for the future of the universe as such if it is not considered from the eschatological perspective reaching 'beyond' the realm of science and its methods of explication – pertaining specifically to the destiny of human beings. This vision cannot be established scientifically, but ultimately, we have to resort to theology. Nesteruk stresses the close relation of Orthodox eschatology to theology of creation and further articulation of the universe by the intelligent agency of human beings and this 'triple' relationship provides the needed basic 'ground plan' of his argumentation. This important conclusion will be discussed further in our dialogue with J. Moltmann in the following chapter of our study.

As we have seen, both Ellis and Nesteruk expand the discussion on the anthropic principles very imaginatively which allows them to set the stage for a more adequate theology of creation. Both emphasized the importance of the 'fine-tuned' universe and the tension present in the whole of anthropic reasoning: „[A] lawlike universe is necessary in order to make free choice *meaningful*, yet those laws must be such as to permit

¹⁶¹ Ibid., p. 230.

undetermined human actions.“¹⁶² In the case of Ellis’ argumentation, the contingent facticity of the ‚provident‘ universe was mentioned, which is allowing the emergence of intelligent life is explained by using the hypothetico-deductive argumentation: „The fine-tuning that is the central puzzle addressed by the anthropic principle is *not* regarded as *direct evidence* for a universal designer, but rather is seen as a *consequence* of the aim of a designer whose existence we are postulating.“¹⁶³ The reference to the Creator and an account of creation provides in turn a teleological account of the world and our place in it. Why there is the universe rather than nothing and why it has the precise properties we observe?¹⁶⁴

To sum up, the underlying issue of human *freedom*, mentioned at several points of our discussion above, is the fundamental feature which needs to be addressed and explicated. As we have seen, ‚scientific‘ anthropic reasoning can only explain the necessary conditions for human existence in the universe, but it cannot provide its sufficient explanation. That is why Nesteruk stresses the fact that *continuity* of man and the universe (i.e., of humans with the rest of creation) is not unlimited, but it is necessary to stress the *discontinuity* pertaining to human freedom, that is, to man created as the

¹⁶² Murphy N., Ellis G., On the Moral Nature of the Universe, p. 208.

¹⁶³ Ibid., [emphasis GE].

¹⁶⁴ „The theological response, coming out of the creation tradition, has been to affirm the aseity and freedom of God as utterly distinct from the absolute dependence of all creation. In other words, the church claims that the universe is contingent both *ontologically*, since nothing need be at all, and *existentially*, since the particular way it exists seems arbitrary.“; Russell R. J., Cosmology from Alpha to Omega, p. 46 [emphasis RR].

imago Dei. He would agree with Philip Clayton who claims the major importance of this concept for our understanding of the relationship between God and the world. Thus eventually we can speak about the ontological dependence of all things on God.

In that respect Clayton even suggests a form of a ‚theological anthropic principle‘: „*The world itself is inhabitable, made for humankind and good, because of its reliance on God and the presence of his Spirit or breath within it.*“¹⁶⁵ Thus, human beings as *imago Dei* are to be seen as the reflection of God’s creative activity in the world, of his ‚free, consciously choosing personal force‘.¹⁶⁶ Physical cosmology (reflected philosophically) and theology can meet in a fruitful dialogue when the ‚human presence in the universe‘ is addressed. As we have seen, the scientific anthropic reasoning left us with a set of philosophical implications, especially pertaining to philosophical anthropology, eschatology, and eventually, to epistemology and ontology. Thus, it is tracing of some of the anthropological and teleological aspects (common to both ‚traditions of human understanding‘) towards which we now turn. Challenged to embark on the common quest for truth, let us explore the ‚volitional‘ (intentional) dimension of cosmology.

¹⁶⁵ Clayton P., *God and Contemporary Science*, p. 29.

¹⁶⁶ *Ibid.*; p. 33,37; In this context Clayton refers to Pannenberg ‚Anthropology in Theological Perspective‘ and claims that: „Freedom is the leitmotiv of theological anthropology, the theory of personhood: we are free to worship God; we are free to make rational decisions; and we are free to turn away from God, to alter the image that was created within us.“

2.3. Scientific Status of Cosmology and its Relation to Theology: The Interplay of Causality and Intentionality

Is physical cosmology a human science? Paraphrasing the provocative question from another important study of Michael Heller¹⁶⁷ we need to inquire into the ‚foundations‘ of cosmology to provide a more balanced view of the interplay of the aspects of human and natural science constituting the ‚interdisciplinary‘ nature of the physical cosmology. Nesteruk sees scientific cosmology as the meeting point (the crossroads) of human and natural sciences. Following Nesteruk, we intend to examine the interaction of ‚physical‘ and ‚teleological‘ aspects of cosmology, the interplay of the ‚causal‘ and ‚intentional‘ elements of cosmology and hereby to elucidate its scientific status and relation to theology. We can start with this important observation: „[I]n cosmology we have a situation where explanation exceeds the level of physical causality and appeals to the ‚facts‘ of intentional consciousness, which are themselves not subjected to any scientific methodology.“¹⁶⁸

Nesteruk stresses the importance of the ‚teleology of human spirit‘ in the whole of scientific enterprise and explains further the ‚intentional‘ aspect of cosmology:

„Intentionality is employed as an indication of an action of human subjectivity that is associated with freedom and potential

¹⁶⁷ Heller M., *Czy fizyka jest nauka humanistyczna?*; in: Heller M., *Teologia i Wszechświat*, p. 159-213.

¹⁶⁸ Nesteruk A., *The Sense of the Universe*, p. 89.

inexhaustibility of the process of conscious acquisition of existence (...) [I]ntentionality is free from logical constraints that follow from the physical universe as well as from any particular, for example discursive, mode of thinking.¹⁶⁹

Furthermore, he points out that there is a growing number of physical cosmologists who express doubts concerning the scientific status of cosmology, that is, whether it can lay claim to follow rigorously the scientific method.¹⁷⁰ Nesteruk refers to the comprehensive analysis of G. Ellis¹⁷¹ whose aim is to list the methodological ‚gaps‘ or weak points of scientific cosmology. They would both agree that many of its fundamental theories are based on extrapolations and conjectures and as a result cosmology presents ‚knowledge‘ which cannot be subjected to experimental verification.¹⁷² Nesteruk, following Ellis, asserts that methods of extrapolation must be evaluated and seen as ‚quietly‘ committed to a kind of realism based on belief in the efficiency of extrapolation. The problem of extrapolation stems from the limits of scientific explanation due to the observational restraints connected to our position, that is, the place of

¹⁶⁹ Ibid., p. 97.

¹⁷⁰ In that respect let us mention studies of M.J. Disney: *The Case against Cosmology, and Modern Cosmology: Science or a Folk Tale?*; and W.J. Wildman: *The Theological and Metaphysical Import of Contemporary Cosmology*.

¹⁷¹ Ellis, *Issues in the Philosophy of Cosmology*; especially part B, where Ellis deals with the large scale of the universe in space and time.

¹⁷² Nesteruk refers to Ellis’s thesis B1 and its explication: „We can effectively only observe the universe, considered on a cosmological scale, from one space-time event. Visual observations are possible only on our past light cone, so we are inevitably looking back into the past as we observe to greater distances. Uncertainty grows with distance and time.“

observation. If we resort to extrapolations towards ‚things‘ which are in principle non-observable and untestable we cannot ascribe (to the outcome of our extrapolations) more than a status of physical hypothesis. This extension towards the non-observable assumes a belief in the possibility to ‚capture reality‘ beyond the sensible and determine effectively its ‚identity‘. Thus, justification of various theories in contemporary cosmology is based on this belief.

Nesteruk refers to a branch of present-day epistemology – the coherence theory of epistemic justification¹⁷³ – and calls our attention to the common praxis in the community of cosmologists whose propositions/theories (based on certain beliefs) do not have to correspond with material facts (‚secured‘ by astronomical observations), but should be coherent with the ‚belief-set‘ of the particular ‚area‘ of explanation. This leads Nesteruk to an important observation that the strategy of extrapolation has some features of ‚philosophical transcendence‘ which are acquired not through physical causation, but through intentions based in acts of indemonstrable beliefs (i.e., cosmologist’s extensions towards non-observable mentioned above). In that context he sees the role of philosophy in evaluating the different kinds of hypothetical extrapolations

¹⁷³ See more in: Nesteruk, *The Universe as Communion*, p. 244-246; Nesteruk, *Coherence of Epistemic Justification versus the Principle of Correspondence in Modern Cosmology*; The core of Nesteruk’s argumentation can be summarized as follows: „An effective methodology of contemporary mathematical cosmology related to the modeling of early stages of the evolutionary universes consists not in the principle of correspondence of its theoretical constructs with empirical reality, but in the coherence of epistemic justification which relates to the belief-like commitments of the community of cosmologists.“, p. 59.

made by cosmologists and tracing the latent philosophical beliefs in operation (at the foundations of their propositions).

The main problem is related to the ‚object‘ of cosmological study, which is ‚the universe as a whole‘. This assumption is problematic philosophically – the universe as an ‚object‘ cannot be matched with the current philosophical understanding of reality. We can talk about different ‚individual‘ things as objects in the universe understood as a space-time continuum (i.e., individual ‚things‘ on ‚the background‘ of the universe), but it is impossible to talk about the universe as a single (individual) object in terms of space and time. The universe differs from other ‚objects‘ of explanation and thus it is impossible to be ‚ontologically‘ clear in our definitions aiming to capture the ‚object‘ of study which we call the universe. In that sense they are inadequate.

Our observations pertaining to the fundamental problems with the ‚object‘ of cosmological research can be summarized by two theses proposed by Ellis:

„(1) The universe itself cannot be subjected to physical experimentation. We cannot re-run the universe with the same or altered conditions to see what would happen if they were different, so we cannot carry out scientific experiments on the universe itself. Furthermore, (2) The universe cannot be observationally compared with other universes. We cannot compare the universe with any similar object, nor can we test

our hypotheses about it by observations determining statistical properties of a known class of physically existing universes.“¹⁷⁴

These statements point clearly to the fact that the universe, which is studied and thematized by cosmologists represents the ultimate limit (noematic) in all the scientific research and explanation. At this point we can also refer to the idea of the ‚participatory universe‘ mentioned above with its underlying conviction acknowledging the fundamental inseparability of human subjectivity from the universe. The study of the universe thus brings us to the central epistemological issues and this observation in turn leads Nesteruk to relate cosmology more closely to the realm of philosophical inquiry whereas the issues pertaining purely to natural sciences and their methodology seem to retreat into the background and tend to be seen as secondary.

If we perceive the universe as the final horizon of all contexts of our enquiry which is, as such, entering all forms of our understanding, we are allowed (from this position) to question the status of cosmology as a natural science.¹⁷⁵

This implies that the idea of the universe as a whole (as well as the idea of the origin of the universe - The Big Bang theory) pertains to this intentionality, that is, an action of human subjectivity seeking to understand its position in the scheme of

¹⁷⁴ Ibid., p. 1216 (theses A1-A2).

¹⁷⁵ „Cosmology admits not only a bottom-up explanation (that is, based on an ascending series of physical causation from the macroscopic empirical phenomena to the additive totality), but also a top-down inference based on intentionality of human subjectivity.“; Nesteruk, *The Sense of the Universe*, p. 96-97.

all things. Those ideas do not enter the scientific discourse necessarily from the realm of physics, Nesteruk argues, but rather through intentional questioning of the 'foundation of all things'. The language of causality is often ascribed to the natural sciences, whereas the human sciences rely more on intentional impetus. But it is rather an artificial differentiation and, according to Nesteruk, it can be easily shown that the 'intentional drive' is prior to causal rationality. This would in turn mean that the natural sciences will be ultimately explainable in the light of human scientific motifs. Nesteruk claims that, in intentionality, human subjectivity and the universe belong mutually together, which means that we can speak about it in terms of communion.

Nesteruk understands the universe as *manifestation* related to humanity which implies a continuous participation and communion with it (thus universe is not that which is 'statically there'). This entails the need to allow for the history of formation of our views on the cosmos and the philosophical and theological questions pertaining to the conditions of knowledge of the universe, including the *telos* of this knowledge and its meaning. Physical cosmology does not exhaust the whole sense of this manifestation and cannot give the account of the conditions of this manifestation (i.e., human presence in the universe). Philosophy, on the other hand, can be seen as a method of investigation into the activities of human subject responsible for 'the forming of sense' in the context of the study of the universe as a whole. The uniqueness of (the study of) the universe (apparently not in a sense of an individual object) as an ultimate

horizon and ‚context for everything‘ also compels Nesteruk to compare it with theology and to outline the difference between cosmology and theology:

„Cosmology predicates the universe as totality devoid of any personal features; in theology, on the contrary, the universe rather appears as being disclosed and manifested by humanity as such a uniqueness and hence ‚individuality‘ that follows from human nature.“¹⁷⁶

This important observation touches the issue of ‚personhood‘ which is central to Nesteruk’s research (namely, the reinstatement of personhood to the central position in the dialogue of theology and science). Nesteruk stresses the fact that cosmology (and science in general) does not account for the very possibility of knowledge (i.e., personhood) and this fact prevents cosmology (science) from participation in the dialogue with theology on the same ‚ground‘. All those issues mentioned above (and seen in the context of the problems of extrapolation based on some ‚regulative beliefs‘ in the mind of cosmologists) can be seen as certain *philosophical* or even *theological commitments*. The role ascribed to theology is then, according to Nesteruk, to exercise an introspection upon science, to conduct a certain critique of science from a position that is, by definition above and beyond scientific and/or secular thinking.

Focusing on the anthropological (and thus teleological) dimension of scientific cosmology allows us to conclude (and to answer Heller’s question posed in the beginning of this

¹⁷⁶ Ibid., 91.

paragraph) that cosmology displays the basic features of the human science and as such can contribute to self-understanding of man, the creator of science and a ‚co-creator‘ with God (though in a very limited sense – through an articulation of the universe). Approaching cosmology ‚from within‘ its ‚human dimension‘ means that cosmology can be studied from the entirely different perspective: not as the enquiry about the fundamental structures of the space-time continuum only, but also (and primarily) as the disclosure of the ‚architecture of the human spirit‘ in its eschatological (teleological) development.¹⁷⁷

The philosophico-theological introspection upon science (i.e., the teleological function of theology), mentioned above, could provide us with a ‚fuller‘ and more balanced understanding of the ‚ontological status‘ of cosmology as well as its (potential) ‚intrinsic‘ relatedness to theology. Scientific cosmology, treated this way, clearly displays its limitedness. Once those limits are recognized and properly reflected, the one-sided emphasis on ‚science as a research program‘ (i.e., as the domain of discursive reason only) could be complemented by the new perspective treating ‚science as wisdom‘, that is, scientific cosmology could be ‚extended‘ and viewed also as the

¹⁷⁷ Nesteruk, *The Universe as Communion*, p. 48; „*If science is to be involved in dialogue with theology, it is important to look carefully at how this science is defined and limited by the structures of human thought and by the human condition in the universe.* This approach does not devalue science, but rather affirms it as an existential mode in its specific incarnate condition and it is definitely not a task for the scientist himself. It is a task for those who can, while exercising their consciousness, overcome the natural attitude and perform a phenomenological reduction of all facticity in science.“; [emphasis, RL]

,contemplation‘ of our existence in the universe. The philosophical analysis of the ,life of science‘ which sheds the light on the nature of ,scientific reason‘ and the process of its ,becoming‘ can be further related to the rationality of theology and explicated in a theological context.

The peculiar ,human‘ elements of scientific cosmology, discussed above in the context of anthropic reasoning and the ,language‘ of intentionality (pertaining to humanity’s free will) will be expounded in more detail in the key chapter of our study dealing with the specifics of Nesteruk’s model of the dialogue of theology and science. At this point we turn our attention to examine the ,future dimension‘ of this dialogue and focus specifically on ,theological eschatology‘ as the vital perspective of our undertaking. Together with J. Moltmann, one of the key Protestant theologians of the twentieth century, we raise the question of the telos of human life – not only as the ,understanding‘ of the ,ultimate limit‘ of all of our knowledge, but also as the search for the ,ultimate future horizon‘ - that is, the question of what can we hope for and what is the ground for such a ,final‘ hope.

3. The Far Future Universe: Alexei Nesteruk and Jürgen Moltmann in Dialogue

3.1. The Cosmic Theology of Alexei Nesteruk in the light of Jürgen Moltmann's theology: An outline of Interaction

The aim of this chapter is to analyze the foundational framework of Nesteruk's theology in the light of the works of J. Moltmann by tracing the basic features of their theologies. The comparison with Moltmann, one of the leading theologians of the twentieth century will help to understand Nesteruk's concept in more detail. The main aim of Nesteruk (as an Orthodox theologian and cosmologist) is to show the specific contribution of the Orthodox theology to the dialogue of science and theology. Conversation with Moltmann – the active participant in ecumenical movement who was quite significantly influenced by the theology of the Eastern church - helps to establish some links between our two theologians and opens the door for the potential further comparative study of their approaches/conceptions.

For both Moltmann and Nesteruk *the Trinitarian concept of creation* gives the needed framework for their deliberations over the relationship of theology with natural sciences and their mutual interaction. More specifically, the eschatological interpretation of creation (nature) would be the appropriate heading of their approach. They would both agree that every interpretation of the world and of nature as God's creation calls for the notion of God's intention, God's final goal (telos).

Moltmann does not want to develop a scientific theology, but to show some points of access for the dialogue with scientific theories (those points he finds within his ‚economic‘ theology of creation, in concepts of space and time). The Incarnation of the Logos of God (in the cosmic context of space and time) is also a crucial starting point for Nesteruk, who goes further and advocates for the synthesis of theology and the sciences. Our discussion with Moltmann and Nesteruk will be supplemented (later in this chapter) with the reference to the chosen works of John Polkinghorne (and some other proponents of the dialogue) whose interest centered on the ‚end of all things‘.

3.1.1. Moltmann’s Theology of Creation and its Trinitarian Framework

Let us list some common features of the work of our two theologians, at first with a special heed to the already well established and still influential theology of J. Moltmann. Both Moltmann and Nesteruk understand creation as a Trinitarian process. If God, his creation and its goal is understood in a Trinitarian sense, it follows that we can see a cosmos permeated with the energies of the Spirit of God. The Creator, through his Spirit, dwells in the ‚whole‘ of his creation as well as in every created being, keeping this ‚whole‘ together. *„Everything that is, exists and lives in the unceasing inflow of the energies and potentialities of the cosmic Spirit.“*¹⁷⁸ By stressing God’s

¹⁷⁸ Moltmann, *God in Creation*, p. 9.

immanence in the world' Moltmann wants to 'correct' the prevailing one-sided interpretation of creation, in which theological tradition placed God the Father as Lord over against his creation. In a wider philosophical framework it also means releasing theological doctrine of creation from the age of subjectivity and the mechanistic domination of the world.

Central for Moltmann is his 'detection' or recognition of God's presence in the world and the presence of the world in God (panenteism). Creation is from God (created by the Father), through God ('formed' by the Son) and in God (exists in the Spirit). With the future orientation of the whole body of Moltmann's 'theology of hope' in mind, it is also necessary to stress that he wants to view nature in the eschatological perspective as a symbol of nature's new creation in God. Eschatology for Moltmann is simply faith in God the Creator with its eyes turned towards the future.¹⁷⁹ Believing in God the Creator who created everything *ex nihilo*, also means believing in the God of resurrection, who gives life to the dead. It is precisely here where we can find hope for the new creation of heaven and earth. The Trinitarian concept of creation ties together the transcendence and immanence of God.

¹⁷⁹ *Ibid*, p. 93.

3.1.2. Cosmic Dimensions of Moltmann's and Nesteruk's Theology: Creation - Incarnation – Deification

Moltmann and Nesteruk both agree that Christian interpretation of creation must begin with the reconciliation of the cosmos in Christ according to the epistles to Ephesians and Colossians.¹⁸⁰ All things are to be united and ‚made new‘ in Christ. It includes the need to address the relationship between grace and nature in a ‚future perspective‘, in the light of the coming glory which brings both nature and grace to their completion. Moltmann asserts that the dualism in the Western church between nature and grace does not reflect the cosmic vision of Christ in the Colossian hymn and encourages to follow Orthodox theology to unite nature and grace in the vision of all-comprehensive *recapitulatio mundi*. He develops his concept of the final consummation of creation (*deificatio mundi*) and theosis of man: human beings become partakers of the divine nature. He quotes a well known orthodox theologian Dumitru Staniloae: „*Every human person is in a certain sense a hypostasis of the whole of cosmic nature, though of course always in close association with other created beings.*“¹⁸¹ It is important to stress the consequence of the hypostatic bond between person and nature: if the person is redeemed, transfigured and deified, nature is

¹⁸⁰ ‚Cosmic Eschatology‘ of Moltmann's book ‚Coming of God‘ (p. 257-317) and ‚The Cosmic Christ‘ (p. 274-307) of his ‚The way of Jesus Christ‘ are two key chapters in which Moltmann explicates his eschatological vision from a cosmic perspective. Bingaman's work ‚All things new‘ is also worth mentioning in this context.

¹⁸¹ Moltmann, The Coming of God, s. 273.

redeemed, transfigured and deified too - human and cosmic eschatology form a unity.

To be created in the image of God does not divide human beings from non-human nature, on the contrary the embodiment - human body (as a part of the Divine image) - is the key to the link between the human person and cosmic nature. It is the very 'link' that binds human beings 'hypostatically' to all the living and the whole cosmos, which is at the same time the hope of its transfiguration, the redemption of nature. The theological foundation of this eschatological scenario for the entire universe is to be found in the resurrection of Christ - who was raised and 'transfigured' - and that was not only a human, but also a cosmic event. Moltmann argues that the *hypostatic unity of nature and person* mentioned above, offers a solution for the modern separation between the *person as subject* and the *nature as object*. On the other hand, he also points out that the deification of the cosmos is not necessarily understood as a new creation of heaven and earth, but it is rather viewed as a spiritualization of the cosmos and 'interpenetration' of it by the energies of the divine Spirit.

The assertion that through his cosmic Spirit, God the Creator is present in the fellowship of creation gives a 'dialectical' and 'process' orientation to Moltmann's doctrine of creation. That means that we can talk about the history of creation which can be interpreted as the history of the 'constant working' of the divine Spirit. The whole creation is woven by the Spirit, it is a reality formed by the Spirit. In that context we need to see two major 'Christological movements' of God: incarnation and

resurrection. We can see the grace of God in the incarnation of the eternal Logos in Christ and this incarnation presupposes and perfects creation.¹⁸²

Moltmann also wants to make a clear distinction between the incarnation of the Logos and the inhabitation of the Spirit which eventually allows him to articulate the self-transcendence of the Spirit in creation (Spirit's ‚sighing‘ in matter with the rest of creation) which is seen as the cosmic dimension of hope. This leads him to a final conclusion (important for his later interaction with natural sciences) that because of the presence of the cosmic Spirit, the Spirit of God, we cannot see the universe as a closed system, but as open for God and his future.

While developing his concept of ‚God in creation‘ Moltmann also addresses the very important aspect of the relationship of the Cosmic Spirit and human consciousness: he understands human consciousness as *reflective and reflected spirit* (thus rejecting Cartesian and Augustinian identification of consciousness and spirit), and *spirit as the essence of the human being's self-organization* (on various levels) and *his self-transcendence*.¹⁸³ Thus he can talk about a unity of body and soul in the spirit: human spirit is not identical with the conscious subjectivity (reason and will), but comprehends it as the ‚unified structure‘ and the ‚whole‘. Furthermore, through the

¹⁸² „The Son, the eternal counterpart within God himself, becomes the Wisdom, the pattern, through which creation is made. The Son in whom the world is created becomes flesh, and himself enters into the world to redeem it. He suffers the self-destruction of creation in order through his sufferings to heal it.“; Moltmann, *God in Creation*, p. 16.

¹⁸³ *Ibid.*, p. 18.

spirit, Moltmann asserts, we are bound together with other people as well as with the natural environment, which in turn means that we are participating in the complex cosmic system of life and in the divine Spirit that animates it.

This implies a question about how this ‚Spirit in creation‘ is perceived by human beings. Moltmann starts from the revelation and experience of the Holy Spirit in the church which is the basis for us to deduce the presence and activity of the Spirit in creation. Here Moltmann stresses one important aspect of the Spirit’s operations in the cosmos: the ‚open intention‘ of the Spirit, or the ‚principle of intentionality‘ in which all creations are directed towards their common goal, their future perfection.¹⁸⁴ This ‚presence of the infinite‘ (Spirit of Creation) in the finite ‚fills‘ each finite individual (as well as the community of all finite beings) with ‚self-transcendence‘, which is expressed in ‚longing‘ and ‚yearning‘ of all creation.

It is also important to point out Moltmann’s claim for the new understanding of knowledge (i.e. of nature) as participating knowledge¹⁸⁵, which is another important aspect of our further discussion with Nesteruk. Moltmann wants to abandon ‚analytical thinking‘ (with its particularizing and reductionistic tendency), differentiating between subject and object, and turn towards (revert to) the *pre-modern concept of reason* as the organ of *perception* and *participation*. The ‚goal‘ of knowledge, according

¹⁸⁴ Ibid., p. 100-101.

¹⁸⁵ Ibid, p. 2-4.

to Moltmann, is to perceive in order to participate not to dominate ‚objects‘ or manipulate with ‚facts‘. Thus he is searching for some starting-points for his ‚turnabout‘ from the modern, subjectivistic concept of man towards the ‚ecologically‘ conscious human being, perceiving himself as a co-creature among other living beings within the community of creation. It will eventually bring us, because of the indwelling Creator Spirit, to see each individual as part of the whole, and every ‚limited thing‘ as exponent of what is ‚infinite‘. In his theology Moltmann also wants to apply new post-critical methods or modes of thought and even to incorporate some elements of poetic perception and intuition. In all of those aspects, as we will see, there are strong parallels between Moltmann and Nesteruk.

3.1.3. Experiential and Mystical Character of Moltmann’s Theology and the Question of Human Vocation

Moltmann’s search for a new concept of reason (as one of the key elements of his economical theology of creation) also implies a change in our understanding of experience. It’s not the all-powerful subject who ‚creates‘ all experience (as the active agent) but experience ‚happens‘ to us. With this observation we have to ask about the role of experience (in general) and particularly about experience of God in Moltmann’s theology (in the light of the wider question of the relationship of theology and science). It seems that in his programmatic ‚Theology of Hope‘ he follows Barth and puts revelation in contraposition to experience. Nevertheless, he often talks about the experience of the Spirit on personal level as well as on the level of community. He claims

that *revelation* and human *experience* have to be thought as a whole: „Anyone who stylizes revelation and experience into alternatives, ends up with revelations which cannot be experienced, and experiences without revelation.“¹⁸⁶ Although the tension between the present experience of God and the guiding principle of ‚promise‘ (the perspective of hope) is present in Moltmann’s theology, we can conclude that the (present) experience of God is not foreign, but integral to Moltmann’s theology.¹⁸⁷

Moltmann also pleads for a ‚natural theology‘ in a modified sense of the word - for general teaching of wisdom, where scientific research tells us something about God, and theological insights something about nature. „His theology develops in open dialogue with the world around him, including other academic disciplines. At the same time he believes that all theology is necessarily provisional and hopes that his readers will engage with his thoughts in a dialogical manner.“¹⁸⁸ The main reason for such a natural theology Moltmann sees in the fact that there is a correspondence between human intelligence and the intelligibility of the universe. Our consideration of the implications of his theology of hope for our understanding of

¹⁸⁶ Moltmann, *The Spirit of Life*, p. 7; Moltmann’s later works have more critical evaluation of Barth’s approach to theology: „By setting up this antithesis between revelation and experience, Barth merely replaced the theological immanentism which he complained about by a theological transcendentalism.“

¹⁸⁷ Following Richard Bauckham (expounder of Moltmann’s theology, and his conclusions concerning the mystical dimension of Moltmann’s theology); Bauckham R., *The Theology of Jürgen Moltmann*, p. 213-247.

¹⁸⁸ Bauckham R., *The theology of Jürgen Moltmann*, p. X.

reality and of creation could be helpful at that point: „For our knowledge and comprehension of reality, and our reflections on it, that means at least this: that in the medium of hope our theological concepts become not judgments which nail reality down to what it is, but *anticipations* which show reality its *prospects* and its future *possibilities*." ¹⁸⁹ Here he sees the wide-open space for communication between science and theology:

„The vista of the open future in the process of differentiation between subjectivity, leads to a new state of reflection. Human beings no longer stand over against nature, as the determining subject of knowledge and endeavour (...) they are also part of a history with nature.“ ¹⁹⁰

This, according to Moltmann, can lead us to disclosure of ‚practical wisdom‘ and teach us about our place in the universe as well as our responsibility for the future we share with the whole community of creation.

Finally, Moltmann and Nesteruk base their theological anthropology on creation, i.e., on their Trinitarian and Christological vision and see a human being as eucharistic being. Man stands and acts as representative for the whole creation offering the world to God in thanksgiving, thus carrying out his ‚priestly‘ role. Moltmann explains further: „*Knowledge of the world as creation is in its primal form thanksgiving for the gift of creation and for the community found in it. True knowing is*

¹⁸⁹ Moltmann, *Theology of hope*, p. 35-36.

¹⁹⁰ *Ibid.*, p. 15 (69).

communicative knowing.¹⁹¹ Contemplating this thought, both of them try to show what the presence of humans means for the whole creation, how by grace human beings are able to draw ,constituents of creation‘ by comprehension ,to conversation‘ and thus into the communion of the Trinitarian life. Thus the role of humanity in the universe is to ,move forward‘ with creation to the ,coming‘, hoped for glory (and ,facilitate‘ the final consummation of creation). Those are, according to Moltmann, the key concepts (still present and alive in some traditions of the Orthodox church) which we need to rediscover and translate into our practical ,wisdom‘ in dealing with nature understood as creation. They will also help to overcome the one-sidedness of the modern attitude to life in our industrial, highly artificial world dominated by technology.

3.1.4. The Sources of Nesteruk’s Neo-Patristic Synthesis in Theology

Alexei Nesteruk starts by recalling that Greek patristic theology contains a cosmic dimension: it is a ,cosmic theology‘, because it is preoccupied also with the fate of the visible cosmos (and not only with reality of ,heavenly things‘) and of humans - as its integral part - in the perspective of the ultimate transfiguration of the cosmos through the union with God, its creator. Nesteruk follows the key Orthodox theologians (e.g. Staniloae, Lossky) and appeals for the reconciliation of the views of Patristic theology in

¹⁹¹ Moltmann, *God in Creation*, p. 69-70.

its cosmic dimension with modern science – thus embodying the ideal of one of the key Orthodox theologians of the twentieth century, Georges Florovsky, and his program of a neo-patristic synthesis in theology. In his research Nesteruk wants - in the context of the ongoing dialogue between science and theology in the West – to elucidate the specific position of Eastern Christianity on the dialogue. Crucial for his concept is the incarnation of the Logos of God, understood as the establishment of the intelligibility of the world in its contingency. The key feature of the argumentation of Nesteruk, who follows Athanasius of Alexandria, was *unity* of both *creation* and *incarnation* in the *Logos* of God. The important consequence is that: „He [Athanasius] does not operate with any distinction between natural and supernatural knowledge.“¹⁹²

For Nesteruk, the concept of incarnation summarizes most of the ‚theological features‘ (mentioned above in comparison with Moltmann). Nesteruk states, that his approach to the dialogue between theology and science can be paralleled with the ‚theological science‘ of Thomas Torrance (as another important source of inspiration for Nesteruk’s research), who in many way tries to incorporate the ideas of Patristic theologians in his writings. He shares Torrance’s conclusion that „neither the doctrine of creation nor the doctrine of the incarnation allows theology to detach itself from, far less despise, natural and human science in which man is set up by God to the task of

¹⁹² Torrance, *The Ground and Grammar of Theology*, p. 77-78.

exploring, and bringing to word, the order and harmony of the universe.¹⁹³ Nesteruk draws wisdom from many sources of patristic tradition, but the main ‚figure‘ for his theology is the 7th century’s Byzantine monk-theologian, Maximus the Confessor. Let us remind the reader, that the ancient world (compared with that of modern times) was cosmocentric. The human being was seen as a microcosm - which includes and reflects the larger world around - whereas the world was conceived as macro-anthropos, as a world of human beings. It was impossible to think nature without human beings, and human beings cannot be thought without nature.

When compared to the universe, human beings became aware of their finitude, transience, or simply, their incommensurability with the universe, whereas the implied commensurability, non-transience and immortality were the attributes of the divine. Incarnation was that major move of God when *„the non-transitory and immortal Logos takes mortal, transitory human nature upon himself, so that transitory and mortal human beings may become non-transitory and immortal.“*¹⁹⁴ The theology of Maximus the Confessor was preoccupied with the ‚cosmic mystery of Jesus Christ‘ that gives the overarching vision of the place and role of humanity in the universe. The vision of ‚cosmic liturgy‘ is ‚guiding‘ Nesteruk’s

¹⁹³ Torrance; Space, Time and Resurrection, p. 179.

¹⁹⁴ Moltmann, The Way of Jesus Christ, p. 48.

research.¹⁹⁵ Nesteruk argues for the relevance of Maximus' vision not only for theology, but in some ways also for the modern cosmological research¹⁹⁶ with its fundamental questions, which are often far beyond the scope of narrowly defined confines of modern science. In brief, in Maximus' theology he finds a hymn of unity of all things „brought about through the creative and redemptive love of God: the unity of man with God and of God with man, *the unity of all creation in man when he fulfills his calling to be at once microcosm and mediator*, that is the one in whom all things created are lifted up to God from whom they came.“¹⁹⁷ This vision gives Nesteruk the basic ‚framework‘ in which he moves in order to develop his theology (and theological appropriation of modern science) in a neo-patristic manner.

¹⁹⁵ In their study ‚On the Cosmic Mystery of Jesus Christ‘ P.M. Blowers and R.L. Wilken provide concise summary of Maximus the Confessor's teaching which is also helpful for understanding the basic framework of Nesteruk's research: „The hypostatic relationship between human and divine in Christ is alone able to manifest and safeguard the purpose for which man was created – deification (...) In his various ‚incarnations‘ the Logos is the supreme divine Mediator, while humanity, the microcosm of the created order, and bearer of the divine image, enjoys the graced vocation of participation in Christ's mediation.“, p. 20-21.

¹⁹⁶ In his article ‚Man and the Universe in patristic thought‘ (2014) Nesteruk discusses the relevance of Maximus the Confessor for the present day cosmology, especially by pondering the question what it means to ‚think of‘ or ‚commune with‘ the universe.

¹⁹⁷ Thunberg, Man and the Cosmos, p. 8.

3.1.5. Existential and Mystical Dimension of Orthodox Theology and its Apophaticism

For further explication of Nesteruk's concept it is necessary to address the 'existential' understanding of theology in the Orthodox Church: theology is perceived as experience of God and faith, communion with God. Theology as the search for God as (personal) *truth* (John 14,6) is only accessible through personal participation in this truth in the worshipping experience. Thus, there is a fundamental need for church members to interact with God experientially, not simply intellectually (there is a strong link between the problem of truth and the liturgical experience, which is seen as a means to proclaim truth). In that context Nesteruk talks about living, incarnate Orthodox faith (i.e. 'existential faith' in the living God himself). This implies the basic stance of Orthodox theology, namely its apophaticism as the only 'possible' way of affirming God theologically. Christians can reach this 'apophatic interaction' through the active participation in the life of the church and meditation (similar to the *via negativa*), when they at the same time both reject and accept images of God derived from creation.

„Theology is seen as spiritual knowledge, which is attained through [our *experience of, RL*] *communion, participation* and is a *gift* (...) theology emerges as the *description* of this experience

in human words and concepts, and not as its *definition*.¹⁹⁸ Thus we can see the dualistic, two-layered understanding of theology. In the strict sense of the word, *theology* designates the unique ‚mystical experience‘ (as incommunicable ‚event‘ of personal communion with God in the liturgical community of the church), on the other hand there is the possibility of further articulation of this experience in the language of symbols, concepts and metaphors - the possibility of an ‚economic‘, dogmatic theology (in support of the ‚mystical‘ theology). This will undoubtedly have implications for Nesteruk’s interaction with science, namely, the only way to establish the dialogue between theology and science means to appropriate science theologically, that is experientially/existentially. In this specific trait of Orthodox theology Nesteruk sees the advantage and the needed ‚orientation point‘ in the widely expanding field of science-theology dialogue. Nesteruk proposes that Orthodox theological ideas, never split from science – the existence of ‚natural thought‘ as a monistic subdomain within a dualistic theology - are now particularly capable of uniting a developed science with theology.¹⁹⁹

Similarly to Moltmann, Nesteruk calls for pre-modern understanding of human reason and talks at length about the special ‚faculty‘ in man, which makes theology (*sensu stricto*) possible. As we have seen in our discussion pertaining to the

¹⁹⁸ Nesteruk, *The Universe as Communion*, p. 111-112.

¹⁹⁹ Allen, Alexei V. Nesteruk. *Light from the East* (book review), p. 1-2.

relationship of faith and reason in Russian thought, Nesteruk turns to patristic anthropology with its concept of *nous* as spiritual intellect (spiritual insight or perception), the faculty of apprehending truth (in contradistinction to *dianoia*, the discursive reason), which can be in a certain way simply related to faith. This distinction in turn helps us to comprehend the apophaticism of Orthodox theology, which „can be understood as the inability of the reason (*dianoia*) to have any direct apprehension of God; at the same time, apophaticism means that any rational discursive definitions of God as truth are inadequate – that is, the *rational concept of truth is not possible*.“²⁰⁰ *Nous* works by direct apprehension (or perception) – of inner essences or principles of created beings (*logoi* of creation in terminology of Maximus the Confessor)²⁰¹ and thus provides communion with truth. It can be seen as an *organ of wisdom*, as a mode of human existence closely related to the contemplative part of man (and ‚facilitating‘ human relationship to God as well as man’s sense of belonging to the entire whole of the community of creation). At the same time, „*nous is identified by Maximus with the totality or wholeness of man*“.²⁰² In the light of liturgical experience mentioned above (serving as certain delimiter in Nesteruk’s concept of dialogue of theology with

²⁰⁰ Nesteruk, *Light from the East*, p. 53.

²⁰¹ The emphasis on the possibility of *contemplation of the logoi of creation* (as a grace of God given to men) is the key ‚perspective‘ of the whole of Nesteruk’s research. Again the link between *creation* and *incarnation* in the *Logos of God* should be stressed in order to grasp what is meant by the *logoi*. See more in: Thurnberg, *Man and the Cosmos*, p. 134-135.

²⁰² *Ibid*, p. 55.

science), the contemplative ability (function) of *nous* applied (or more accurately – its ‚hidden presence‘ in any cognitive activity) in scientific research can lead to knowledge of God.

Nesteruk, following Clement of Alexandria, argues that faith (as expression of our conviction about unity of orders in creation, provided by the incarnate Logos)²⁰³ is a condition of knowledge of any kind. He treats sciences, philosophy and theology as different ways of knowing, which are *cooperating in truth*. This provides him the needed ‚methodology‘ for interaction of theology with science, capable of removing some of the ‚modern concerns‘ about (or providing a new attitude to) the relationship between theology and science.

3.1.6. Theology and Existential Phenomenology – ‚Intentionality‘ of the Spirit and the ‚Telos of Humanity‘

Nesteruk uses the language of *intentionality* borrowed from the framework of phenomenological philosophy in order to understand and explicate the continuing embodiment of the human subject in the world through faith, knowledge and technology.²⁰⁴ With the patristic theology of Incarnation as the background of his thought Nesteruk uses existential phenomenology as an effective tool for mediating between

²⁰³ In that context, i.e. the Incarnation of the Logos in space and time (and its epistemological consequences) , Nesteruk uses argumentation of Torrance, who wants to bring together the doctrines of creation and incarnation. See more in: Torrance; *Space, Time and Incarnation*, p. 58-59; See also: Nesteruk; *Universe, Incarnation and Humanity: Theology of Thomas Torrance and Modern Cosmology*.

²⁰⁴ Nesteruk, *The Universe as Communion*, p. XI.

theology and the natural sciences. He develops his concept of intentionality of faith (Spirit-like intentionality) and shows that sciences in their approach are ‚incomplete‘, not able to address the issue of their foundations (their contingent facticity), nor to address the existential meaning of human life. He perceives the basic asymmetry between science and theology: Science doesn't account for the very possibility of knowledge (which is *personhood* as ‚the center of manifestation and disclosure of the universe‘, to borrow Nesteruk's terminology) and that in turn prevents science from participation in the dialogue with theology on the same level, or on the equal ‚ground‘.²⁰⁵ Human life is always above the realities described by sciences alone, it always precedes its explication by science.

It is this asymmetry which constitutes Nesteruk's specific approach to the dialogue which he calls ‚theological commitment‘. Any involvement of theology within the science-religion dialogue must ‚raise‘ this problem to the experiential (existential) level. To solve this deficiency he wants to see the sciences in the wider framework of existential faith and interpret them on the background of ‚infinite‘ spiritual achievements of

²⁰⁵ Similarly Moltmann, while advocating for ‚wisdom‘ as an interdisciplinary ‚space‘ for the dialogue of theology and science, addresses the problem of scientific foundations: „It [modern science, especially positivism; RL] *recognized neither the historicity of phenomena, nor the historicity of the observer, nor the historicity of the way phenomena and the observer are mediated to each other in perception ... science become a magic word for the new world-magic, and was made the sole criterion for the knowledge of truth.*“ (i.e. replacing the old mythical and theological interpretation of the world); Moltmann, *Science and Wisdom*, s. 10.

humanity (,infinite tasks of humanity')²⁰⁶; thus to address the problem of religion and science for Nesteruk means to articulate it as the ontological problem of incarnate existence. Or to put it differently, his neo-patristic approach to the dialogue of theology and science is mostly concerned with the question of truth and aims to reinstate both theology and science to their proper inseparable position in the ,telos of humanity', understood as allegiance to truth. With his stress on the ecclesial dimension (the liturgy of the church as means of proclaiming truth) of the dialogue as its inseparable dimension Nesteruk advocates a different attitude to the interaction of theology and science (than is the common practice in the West).

And it is exactly here where he sees the specific contribution (and necessary ,correction') of the Eastern Orthodox church to the prevailing tendency in the Western discussion.²⁰⁷ He wants to address the personal dimension of every human activity (including science and theology) which is often ,lost' in the common practice of the dialogue in the West. The leading motive of his research is to defend the person and to reinstate it to its central status in dialogue between theology and science. As

²⁰⁶ The ,infinite tasks of humanity' is the key concept of Husserl's last work, ,The Crisis of European Sciences and Transcendental Phenomenology', where he aims to analyze the foundations of science tracing its development from ancient Greece up to the alleged crisis of the modern sciences at the time of Husserl's writing.

²⁰⁷ On that point Nesteruk follows another important orthodox theologian of the twentieth century, John D. Zizioulas, whose main critique was turned against the problem of dissolution of *personhood* in Western society. He states that „the ecclesial hypostasis is the *faith* of man in his capacity to become a person (not only a bearer of individuality, separation and death) and his *hope* that he will indeed become an authentic person.“ (i.e. faith and hope in the immortality of man as a person), Zizioulas, *Being as Communion*, p. 58.

a scientist-theologian (cosmologist) Nesteruk wants to see the universe as *communion*, which is to be understood in patristic sense as an ontological concept (in the context of the Eucharist as the locus of truth in patristic thought).²⁰⁸ He also wants to employ modern cosmology in order to explicate the hidden theological commitment in science, which means ,to understand the existential sense of the universe, to ,understand‘ what it means to think of or commune with the universe‘.²⁰⁹ Theological commitment (in science) also implies critique of a scientific (secular) mode of thinking - the issue of the ethical value of science with its claims for objectivity, neutrality - and its immoderate ambitions to solve problems beyond its scope. This commitment, as we have seen, is anthropological - related to the unique position of humanity in the universe - and ,teleological‘, as concerned with humanity searching for its telos, and thus performing its ,role‘ within God’s creation.

The concepts of Nesteruk and Moltmann show some remarkable similarities. Although they both represent different theological traditions - that of Eastern and Western Christianity respectively - the common ground of their approaches and similarity of their vision can be seen as a promising invitation for the further dialogue in the ecumenical context. They both refer

²⁰⁸ Nesteruk talks about the paradoxical situation of human (ecclesial) existence (and thus the ,dual position‘ of man in the world) and again takes inspiration from Zizioulas: „Man appeals to exist in his ecclesial identity not as that which he is, but as that which he will be; the ecclesial identity is linked with eschatology, with the final outcome of his existence (...) The truth and the ontology of the person belongs to the future, are images of the future.“ ; Ibid., p. 59, 61-62.

²⁰⁹ Nesteruk, *The Sense of the Universe*, p. 13.

to some pre-modern ideas and concepts (e.g. of reason) and – in their critique of modernity – are striving to create a holistic conception of theology. In the case of Moltmann and his ‚hermeneutics of hope‘ we can see the expression of his critique in creating postmodern ‚ecological theology‘ as the ‚hope‘ for endangered ‚world‘. The theology of Maximus the Confessor – standing ‚symbolically‘ between the East and the West - can be seen as a needed ‚bridge‘ between our two theologians. Expanding on some aspects of the theological vision of Maximus the Confessor can stir an inspiring and fruitful engagement of pre-modern and post-modern ideas. That is where Nesteruk starts and wants to explicate the key concepts of Patristic theology in contemporary language employing the conceptual tools of existential phenomenology.

Turning to Patristic theology means for Nesteruk to follow the ‚spirit of the Fathers‘ who engaged deeply with the prevailing philosophical and ‚scientific‘ ideas of their times. With this ‚heritage‘ Nesteruk sets off to build his synthesis of theology, philosophy and science (or to put it differently, his theological appropriation of science). Moreover, in the light of the works of Jürgen Moltman we can see Nesteruk´s main contribution in developing further some of the basic claims Moltmann made in his economic theology of creation (i.e., for the new concept of reason, intentionality, the stress on the future of creation), their thorough philosophical explication in the context of the dialogue of theology and science. Both of them want to think transcendence and immanence together – their vision of ‚God in the world and world in God‘ has powerful practical implications

for our lives. It can result in our ‚wiser‘ and more humble approach to knowledge and our interactions with the world in which we live and which we explore. It can provide guidelines in our search for the meaning of life and the sense of the universe. We might be able to see the sacred dimension of scientific activity and might even perceive it as a part of man’s religious ‚calling‘, as a response to God the Creator and ‚Perfector‘ of the universe. Both Moltmann and Nesteruk encourage such a vision and contribute to it by their stimulations for the dialogue of theology and science in an ecumenical setting.

3.2. Eschatology from the Cosmic Perspective

Our discussion above shows emphatically that there is a need to address the relationship of natural science and theology from the cosmic perspective examining the eschatological scenarios of both disciplines. The evolutionary character of our world - the expanding universe - allows for extrapolations not only towards the ‚native stages‘ of the universe (as discussed in the previous chapter focusing on The Big Bang theory) but also encourages the ‚grand speculations‘ about the end (*finis*) of all things. Our quest to provide the accurate picture of the remote future narrows down to the central question about the ultimate fate of the universe itself and most importantly - *whether the human life will come to an end as the universe evolves.*

The current scientific predictions for the end of the universe present various scenarios²¹⁰, but what they have in common is a simple conclusion that there will eventually be an end of life as well as of the universe as we know it today. Since all of the eschatological propositions of physical cosmology operate with ‚astronomical‘ time scales (of millions of years) it can be argued that they are slightly irrelevant for theology. Nevertheless, being aware of the important role the (popularized) scientific cosmology plays in our society - especially in forming the particular worldviews - there is a need for theology to measure up with the current scientific ‚pictures of reality‘ and to address the impact they have on the life of society and its individual members. There is a need to face the ‚eschatological moods‘ in our cultures with their strong apocalyptic and nihilistic overtones, which stress the transience and futility of life in the universe.

The ‚principle of hope‘, peculiar to Moltmann’s theology is challenged and so there is a cry for a responsible eschatology which is not a false and empty consolation. a growing number of

²¹⁰ The main two scenarios of the end of the expanding universe are described by two hypotheses called the ‚Big Freeze‘ and the ‚Big Crunch‘. The hypothesis of the Big Freeze (which is the most probable account of the end of the universe based on the observations) assumes the continued expansion of the universe until it loses its energy and eventually becomes too cold to sustain life (the so called ‚heat death‘ of the universe). The alternative hypothesis, the Big Crunch, ‚predicts‘ that at a certain point the expanding universe starts to re-contract which will eventually lead to the final state of the universe which is similar to its initial phase – as a dense and hot ‚state‘ described in The Big Bang theory. This pessimistic picture clearly contrasts with the perspective of hope of the Biblical eschatology and as such provides an important topic for the dialogue of theology and science. For more details pertaining to the Christian appropriation of those hypotheses see: Russell, *Cosmology - From Alpha to Omega*; Wilkinson, *Christian Eschatology and the Physical Universe*; Polkinghorne, Welker; *The End of the World and the Ends of God*.

scientists and theologians see eschatology as their common concern in their quest for orientation in the changing ‚eschatological moods‘. To avoid a false hope for the future the threefold task for theology is outlined. Theology should:

„(1) [T]ake the notions of finitude formulated by the natural and social sciences seriously (...) and it must participate in testing their limits; (2) [A]sk whether, and if so how, our cultural symbol systems resonate with the notions of finitude expressed by the sciences (...) and it must examine the boundaries of these approaches; (3) [R]eexamine its views of hope, joy, the divine future, the new creation, and eternal life.“²¹¹

If all of those aspects are taken seriously the more balanced ‚picture‘ of the ‚far-future universe‘ appears. Every discussion about the ‚end of the world‘ presupposes the temporality of the world which has its beginning and will have its end, meanwhile being in a movement towards its final ‚stage‘, its ‚goal‘. Our eschatological considerations can follow the traditional differentiation between ‚an end‘ (finis) of the world and its goal (telos). Our proposition is to hold this two aspects tightly together and, along with Moltmann, see them as the inseparable ‚constituents‘ of *God’s telos* – to treat it at once as the *end* as well as the ultimate *goal* of human history and the history of creation. *„End and completion, termination and innovation...are the two sides of the same coin which we call ‚the coming of God‘.“²¹²*

²¹¹ Polkinghorne, Welker; *The End of the World and the Ends of God*, p. 8.

²¹² Moltmann, *Experiences in Theology*, p. 44.

At the outset we can provide once again the concise summary of the vision of Moltmann's theology: In the coming of Jesus Christ, his death a resurrection, the 'human history' and its 'ambivalently' open future ends as the promised kingdom of God is inaugurated. The eschatological resurrection of the crucified Christ results in the outpouring of the Spirit on all flesh. Thus, in Jesus Christ we meet with the final and the ultimate, and that allows us to see and speak about the purpose of our life, human history and history of entire creation in the light of Christ's resurrection. The light of God's future showing His intention with the entire universe reveals our 'present day of history' as being on a way (or in transition) to the eschatological contemplation of God, when we will know Him face to face:

„Just as the name of Christ also delineates the way leading from the history of Jesus' life and death to the risen and coming Lord, so Christian faith, too, is a way and *transition* from believing to knowing, from hoping to seeing, and from loving to understanding.“²¹³

In the following section we will focus mainly on the chosen eschatological issues (especially on *hope* for the future of creation) before addressing their implications for the cultural dynamics and the potential interaction of 'knowledge' and 'wisdom' in discussion with Moltmann, Nesteruk and some other proponents of the dialogue of theology and science in their common search for a 'wider space' for a 'deep' dialogue.

²¹³ Ibid., p. 45 [emphasis, JM].

3.2.1. Hope and the New Creation

It is obvious from daily experience that it is not easy to speak about hope and the future of the world, that we are left to deal only with a ‚hope against hope‘²¹⁴. It is difficult for theology as well as for science for several reasons: What words are theologians to use to express God’s dealings with the world and its future prospects in the light of all those disturbing events of the twentieth century? What are scientists to tell us about the future destiny of life in the universe (or about afterlife) if the predictions of physical eschatology (cosmology) are taken seriously? If they are engaging themselves in that matter at all, they are prompt to assure us that their conclusions are not much more than empty speculations. That is why there is a rather small number of them who are immersed in those matters.

Yet, if we neglect the question of hope, we deliberately give up the vital perspective which can give our lives and minds the right ‚configuration‘. Let us turn to theology at this point and overview Moltmann’s proposition once again. In opposition to the common theological approaches treating eschatology as mere appendix at the end of Christian dogmatics Moltmann argues:

„In actual fact, however, eschatology means the Christian doctrine of hope, which embraces both the object hoped for and also the hope inspired by it. From first to last, and not merely in the epilogue,

²¹⁴ Richard Bauckham and Trevor Hart examine the biblical eschatological imagery in a situation of ‚failed hopes‘ of our contemporary ‚modern‘ world in their book of the same title. See more in: Bauckham R., Hart T., *Hope against Hope*, Eerdmans, Grand Rapids, 1999.

Christianity is eschatology, is hope, forward looking and forward moving, and therefore also revolutionizing and transforming the present.²¹⁵

Moltmann aims to show how theology can be derived from hope when considered from an eschatological perspective. It can be said therefore that ‚hope‘ is a special Moltmann’s eschatological hermeneutics. Hope is the leading principle of Moltmann’s theology not only in his major works, but also in his later less systematic approach, which he called ‚systematic contributions to theology‘. With his *Theology of Hope* Moltmann aimed at balancing the prevailing discussion of twentieth century. In opposition to Barth and Bultmann he called for ‚cosmological eschatology‘, for universal hope, which was neglected in the works of those authors. Moltmann protested against the alleged antithesis of man as standing over against the ‚world‘ understood as a mechanism, self-contained deterministic system. In that case it will not be possible to speak about faith, ‚believing existence‘ living in hope and openness to other men and the rest of creation: Hope then fades away to the hope of solitary soul in the prison of a petrified world, and becomes an expression of a gnostic longing for redemption“.²¹⁶ It could not be sufficiently stressed that it is necessary not to separate what is by its nature interconnected: „*If God and*

²¹⁵ Moltmann, *Theology of hope*, p. 16.

²¹⁶ *Ibid.*, p. 69.

*salvation cannot be interpreted in their reference to the whole, (...) they cannot be interpreted at all.*²¹⁷

Another reason for our reluctance to talk about and deal with the future is our disappointment with the failed attempts to see a better world, disillusionment with our ‚utopias‘. But we do not have to take the ‚pieces‘ of which the world to come is going to be built only from our limited resources nor from our own counsel. The basis for our hope is not misleading or arbitrarily chosen, it has a real historical foundation:

„Christian eschatology does not speak of the future as such. It sets out from a definite reality in history and announces the future of that reality, its future possibilities and its power over the future. Christian eschatology speaks of Jesus Christ and *his* future. It recognizes the reality of the raising of Jesus and proclaims the future of the risen Lord.“²¹⁸

Thus, the difficult task of addressing the eschatological issues in the interdisciplinary dialogue seems to be the essential, vital as well as fruitful enterprise. The issue of the end of the world was widely discussed among theologians, scientists and biblical scholars at Princeton during the late 90´s of the last century.²¹⁹ Similar in its aim and scope was a symposium of the Pontifical Academy of Sciences and the Vatican observatory

²¹⁷ Moltmann, *Science and Wisdom*, p. 5.

²¹⁸ Moltmann, *Theology of hope*, p. 17.

²¹⁹ Polkinghorne, *The God of hope and the end of the world*, p. XV; „Their task was to reconsider, in the light of modern knowledge, the expression of Christian eschatological hope concerning the end of the world and concerning the fulfillment of the divine purpose for creation.“

(Rome, 2000). Both undertakings resulted in number of books and studies concerned with eschatology. In the following paragraphs we mainly focus on the works of John Polkinghorne, an English theoretical physicist, theologian and Anglican priest who is an important partner in dialogue with Jürgen Moltmann.

Polkinghorne starts to examine the contours of the argument from the scientific side and provides the basic considerations aiming to give us the overview of the present-day scientific opinions concerning the end of the world. The conclusion is the lack of hope and the author's cry for it:

„From its own unaided resources, natural science can do no more than present us with the contrast of a finely tuned and fruitful universe which is condemned to ultimate futility. If that paradox is to receive resolution, it will be beyond the reach of science on its own.“²²⁰

Pointing out the limits of science and then taking a leap of faith accompanied with furnishing the future horizon with clear picture of a world to come is the weakness often stressed by other scientists. Arthur Peacocke represents the group, which is more skeptical and reserved in its approach, having problems to accept all the answers and views about afterlife and new creation given by Polkinghorne and Moltmann. He rightly points out that the questions of eschatology (in contrast to the questions of the origin of the universe, of creation) are rather of a speculative kind and the answers offered by theologians are impossible to verify. R. Russell, on the contrary, provides a more positive

²²⁰ Polkinghorne, *The God of hope and the end of the world*, p. 27.

account of the future of the universe if seen in the light of theological reasoning.²²¹ The aim is to provide a theologically coherent whole, making sure that the arguments are plausible if the rules of 'theological argumentation' are accepted. This observation, on the other hand, leaves us with the awareness that his (and similar) proposition(s) might not be easily accepted by science in general, which holds to different set of rules in its 'scientific argumentation'. Thus we are left with the question: isn't there any possibility of an overarching view solving the riddle of our quest for meaning and wholeness of our understanding?

Before we turn to address this question we should briefly touch another important aspect, namely, what will be new and what will stay preserved from the present creation after consummation of the old in the new creation. Moltmann provides a basic outline of the three traditional concepts of the future of the universe: (1) *the annihilation of the world* (annihilatio mundi) typical for the Lutheran theology (and some of the modern 'fundamentalists') stressing God's total freedom towards his creation; (2) *the transformation of the world* (transformatio mundi) held by medieval Catholic theology and Calvinist theology which stressed God's faithfulness as the transcendent foundation of creation preventing its total

²²¹ Russell addresses the tension between the pessimistic account of science describing the final stages of our universe and the hope of theology for a transfigured cosmos seen as a new creation. Russell argues that this tension and the potential conflict might be settled if we refer to God's omnipotence and freedom. This assertion is not in conflict with science, but mainly with 'determinism'. Russell, *Cosmology – From Alpha to Omega*, p. 265-266.

destruction and finally; (3) *the deification of the world* (deificatio mundi) advocated by the Orthodox theology stressing the cosmic implications of Christ's resurrection: envisioning a 'cosmic temple' of God's presence.²²² All of those historical propositions stress one-sidedly some chosen and preferred biblical passages and their interpretation in various historical theological traditions. Moltmann, combining the last two propositions, calls for a careful examination by the means of the inter-ecumenical dialogue as well as theological intercourse with the world of science. The basic conviction and the characteristic feature of both Moltmann and Polkinghorne is the stress on 'balance': „The ground bass of the discussion is the necessity of an *interplay between continuity and discontinuity* in speaking of God's purposes beyond the end of history.“²²³

To tackle this problem comprehensively would entail a serious study of the core issues like the concept of God and his 'place' in and interaction with the 'world', the nature of the matter around us, nature of time, space and eternity. There is no room to expand on those questions at this point. But just raising those questions and drawing on some implications of them gives us important framework for our undertaking: „*Without an element of continuity*, the story of the eschaton would simply be a *second story*, with no coherent connection with the presently unfolding story of this creation. *Without an*

²²² Moltmann, *The Coming of God*, p. 268-275.

²²³ Polkinghorne, *The God of hope and the end of the world*, p. XXII – XXIII.

element of discontinuity, however, that second story would simply be a *redundant repetition of the first*.²²⁴ It is clear that answering and balancing these questions gives us crucial insight into our ‚role‘ in the world to come and our interest should accordingly be in finding the meaning and coherence of such combination of continuity and discontinuity in our quest for truth. Polkinghorne reaches the following conclusions concerning necessity of both elements:

First, ensuring the *different character* of the new creation he stresses the Resurrection and Ascension of Jesus which has consequences for the world to come, which will be *newly integrated* with the divine life in an intimate way. Polkinghorne also asserts at this point, contrary to Moltmann, that he does not accept panentheism as a ‚theological reality‘ for the present world, but he believes it will be the world’s ‚final form‘, the eschatological destiny for the future of creation. On the other hand, when considering *continuity* he insists that the new creation arises from the ‚pattern‘ of Christ’s resurrection – as the risen body of Christ was the eschatological transformation of his dead body, the same can be expected of the new creation: „[T]he new creation does not arise from a radically novel creative act *ex nihilo*, but as an *redemptive act ex vetere*, out of the old.“²²⁵

Another important claim of Polkinghorne’s approach is his concept of ‚time in eternity‘ which is one of the biggest

²²⁴ Ibid., p. XXIII [emphasis, RL].

²²⁵ Ibid., p. 114-116.

differences if compared with the ‚traditional‘ eschatological thought.²²⁶ Polkinghorne, who understands his work as being a part of the tradition of English natural theology, dismisses the common claim of modern science about futility of eschatological thinking. He points out that we have to believe in order to understand, and that is applicable not only to theology but also to science. Similarly Moltmann, as we have seen, argues for a ‚natural theology‘, but in a modified sense of the word, for a general teaching of wisdom, universal in its scope. The fact that his work is grounded in the eschatological outlook of his theology of hope means that it is essentially ‚open‘ even in the wider, ‚structural‘ sense.²²⁷

His assertion of the provisional character of theology is a promising invitation for an open dialogue with the ‚world around us‘, a potential encouragement for scientists as well as theologians for their mutual interaction. Moltmann thus offers an ‚open system of reality‘²²⁸ which can help us to find the common ground for our quest for truth and for the complex

²²⁶ „In this universe, space, time and matter are all mutually interlinked in the single package deal of general relativity. It seems reasonable to suppose that this linkage is a general feature of the Creator’s will. If so, the new creation will also have its ‚space‘ and ‚time‘ and ‚matter‘. The most significant theological consequence of this belief is the expectation that there will be ‚time‘ in the world to come. (...) One must recognize, however that this conclusion runs counter to a good deal of eschatological thinking.“; *Ibid.*, p. 117.

²²⁷ „The genuine openness of this future ensures that theology does not already know all the answers but can learn from other approaches to reality. At the same time the Christological starting point, in the light of which the future is in Jesus Christ, keeps Christian theology faithful to its own truth and so allow it to question other approaches and enter into critical dialogue with them.“; Bauckham, *The Theology of Jürgen Moltmann*, p. 7.

²²⁸ Moltmann’s argumentation pertaining to the eschatological perspectives for the (open) future of the universe is based, besides other sources, on an important study of A. Koyré, *From the Closed World to the Infinite Universe*.

picture of reality in present world (but also ‚reflecting‘ the realities of the ‚world to come‘). There are also some important analogies to be found in Nesteruk’s proposition, which centers on theology of man as the open, questioning human being, created in the image of God. Nesteruk starts with theological anthropology focusing on the spiritual intellect (*nous*) and its mediatory role which at the same time prepares the ground for the pneumatological dimension of the dialogue of science and theology. Nesteruk claims that theological statements employ essentially open concepts (not limited by ‚this-worldly logic‘ but rather centered on the ‚logic‘ of ‚spiritual knowledge‘ which is relational upon the divine Logos) and are involved in ‚open-ended development based on the infinite intelligibility of God revealed through *nous*‘.²²⁹ Thus he can speak about evolving reason (rooted in faith) which constitutes the essentially *open epistemology* of theological reasoning. Although different in many important respects, the propositions of Polkinghorne, Moltmann and Nesteruk are in favour of more dynamic picture of life in its totality.

As we have already seen, the theological conceptions of Nesteruk and Moltmann display many important parallels. Nevertheless, it is necessary at this point to stress the

²²⁹ Nesteruk assumes the existence of the fundamental ontological difference between this world and the realm of the Divine: „Incomprehensible, open-ended intelligibility of the Divine makes reason unable to think anymore, for the intelligible entities become nonrational or, more precisely, transrational; reason enters the domain of *learned ignorance* (...) It is exactly the different ontology of the Divine that demands a development of *open epistemology*, any suitable epistemology that will be a part of the dynamics of approaching the Divine, guided by faith and kept within its boundaries.“ [emphasis, AN]; Nesteruk, *Light from the East*, p. 65-66.

distinction in emphases which Moltmann and Nesteruk lay somehow differently on the particular theological aspects pertaining to eschatology. Contrary to Moltmann who wants to stress the eschatological history of God which is experienced and accomplished in the context of the future, Nesteruk accentuates the realized eschatology of the Eucharist. Nesteruk's neo-patristic synthesis follows the eschatology (and Christology) of the ancient church which tends to emphasize the vertical dimension of God's dealings with the world: it focuses more on the eternity of God, whereas the history of the future of God's kingdom rather retreats to the background. Nesteruk asserts the key importance of the concept of truth in the Orthodox theology, the 'commitment' which implies the need to enquire about the 'facticity' of science as related to this truth. He wants to 'reinstate the proper relationship of science and theology to the Eucharist – science and theology get their proper inseparable position in the entelechy of humanity (i.e., the allegiance to truth as *telos* of humankind)'.²³⁰

It seems plausible to argue, that it is possible to speak of realized eschatology as being in the 'process of realization'. The stress is rightly laid on the Kingdom of God which was realized in the coming of Jesus Christ which in turn allows us, at the same time, to emphasize the important role of the church, God's Word and the sacraments - Christ's body - as the visible foretaste of the 'realized kingdom' which is already here as

²³⁰ Nesteruk, *The Universe as Communion*, p. 5.

„perfect‘ but not yet in its fullness. Our eschatological thinking thus should be understood as being engaged in the „process of becoming‘. Nesteruk wants to emphasize the key importance of the celebration of the Eucharist which forms the central act of the worshipping community bringing about its unity.

Nesteruk advocates the change of attitude in the theological interaction with science and stresses the need to „recover‘ the eschatological dimension into the very heart of the scientific and philosophical approach to the world. He emphasizes the role of *metanoia* in the dialogue of science and theology which implies for the scientists and theologians the need to restore their self-image (i.e., by „reverting‘ the modern tendency to treat human beings as the mere „objects‘ of scientific thought or technological manipulation) and ultimately, *metanoia* would lead to the changed apprehension of the position of humanity in the universe, the restoration of the „world-image as the medium of man’s communion with God‘.²³¹ It means, in a sense, that our knowledge of earthly things presented by science needs to be „sanctified through faith, repentance and love‘.²³²

Nesteruk’s approach to the dialogue also wants to contribute to the reconciliation between the East and the West on various levels of the ongoing ecumenical endeavor.²³³

²³¹ Ibid., p. 36. See also the introduction to D. Staniloae’s thought: Miller, *The Gift of the World. An Introduction to the Theology of Dumitru Staniloae*.

²³² Nesteruk, *The Universe as Communion*, p. 34.

²³³ „A neo-patristic synthesis of theology and science reveals itself as that eschatological intentionality of the human spirit which transcends all negativity and possible dialectics in relations between Orthodoxy and the West thus establishing a relationship between theology

By appealing to the writings of the Church Fathers (as the common ground of the Eastern and Western Christianity) Nesteruk advocates for ‚acquiring the Patristic mind‘, which he understands as developing a faculty of intuition which eventually leads to recognition of the ‚underlying reason‘ (Logos, Wisdom) and which at the same time forms its telos (i.e., a hidden teleology of reason as progressing towards ‚Truth‘). Nesteruk argues, that the ‚Spirit of the Fathers‘ points and leads us to our ‚common‘ future. The appeal to the realized eschatology of the Eucharist constitutes the key element of Nesteruk’s proposition, bringing to the foreground the ecclesiological ‚apprehension‘ and ‚securing‘ of truth and the implications of this understanding for the further dialogue of theology with science within the overall cultural (intellectual) life of our age.²³⁴

3.3. Wisdom as a ‚Wider Space‘ for the Dialogue of Science and Theology?

The fact of the raised awareness of the need and importance of the cooperation between science and theology in the last few decades can lead us to argue that this dialogue - as a complex

and science on the level of *the infinite tasks of humanity, driven by the Holy Spirit from the future age.*“; Ibid., p. 35 [emphasis, RL].

²³⁴ Nesteruk stresses this fundamental ‚delimiter‘ of the dialogue: „In order to reinstate this dialogue to proper ontological and soteriological status, Orthodox theology must observe its proper traditional sense as the theology of the living Church, where the Church is understood in a cosmological context as the multihypostatic consubstantiality of all those who lived, who live and will be living.“; Ibid., p 33.

cross-disciplinary undertaking – constitutes an important dynamic force shaping the ‚face‘ of our culture and its future. Although the scientific reasoning still seems to be treated as intellectually superior if compared with other ‚modes of knowledge‘, the post-modern ‚pluralistic attitude‘ to knowledge allows the wide array of ‚particular views of reality‘ to interact and enrich each other. The gradual wiping of the traditional boundaries between academic disciplines as well as the various intellectual traditions seems to be an open door for the search of the ‚common space‘ or ‚platform‘ for the much needed (not to say necessary) cross-disciplinary and cross-cultural (as well as ‚inter-ecumenical‘) communication. The following paragraph focuses on ‚wisdom‘, which could be the needed inter-disciplinary space (and ‚framework‘) for the dialogue of science and theology.

The concept of wisdom – potentially evoking the impression of the ‚outdated‘ language or ‚mode of thought‘ - and its wide semantic range calls for a more precise definition to prevent the potential negative evaluation. The collection of essays dealing with the nature of wisdom and knowledge is helpful in many respects.²³⁵ ‚Wisdom‘ in current narrow understanding of the scope of science seems problematic: „It has come to denote a holistic, non-technical, mode of knowing – a human quality that combines knowledge of the world with practical experience

²³⁵ See more in: Meisinger, Drees, Liana; Wisdom or Knowledge? Science, Theology and Cultural Dynamics.

and, crucially, a set of moral commitments. In certain respects, then, it has become an antipathy of scientific knowledge.²³⁶ Nevertheless, it is necessary to stress (from the theological and historical perspective) the mutual interaction and interdependence of both wisdom and knowledge, based on the relational character of ‚Hebrew thinking‘.²³⁷

Some of the essays also provide the careful evaluation of the historical development of both concepts and their variable interactions from the Patristic era until the present time. It is also argued that modernity brought with itself the fateful clash between the ‚knowledge‘ and ‚wisdom‘, that is, the separation of the traditional ‚partners‘ which were in an intimate connection in some of the earlier periods of Western intellectual history.²³⁸ The quest for the ‚whole truth‘ as the uniting factor of both scientific and theological enterprise calls once again for careful examination of the richness of the concept of wisdom.

In the case of Moltmann’s theology, the idea of ‚wisdom‘ as a wider space for dialogue stems from his theology of hope as well as the stress on the ‚Wisdom tradition‘ of the Old Testament and its New Testament appropriations. Here we need to refer

²³⁶ Ibid., p. 51.

²³⁷ „Wisdom is connected with the heart. And in the Hebrew context heart can be understood as the centre of human being. This notion seems to be accessible rather easily to modern common sense. Wisdom is something that has to do with our being in its depth (...) It transcends pure knowledge, and does not even need knowledge in every single circumstance (...) Knowledge is connected to the soul, pointing towards the fulness of human beings.“; Ibid., p. 1-2.

²³⁸ Harrison, Disjoining Wisdom and Knowledge. Science, Theology and the Making of the Western Modernity; in: Meisinger, Drees, Liana; Wisdom or Knowledge?

once again to the cosmic Christology and the ‚epistemological‘ foundation of the cosmic Christ which is the *Logos* as the *mediator in creation* (John 1), an allusion to the ‚messianic Wisdom‘ of God the Creator. God’s covenant with his creation ‚makes fast‘ the universe through the immanent presence of His wisdom in all things.²³⁹

In the same manner as everything was created by the Wisdom of God, there is the promise of redemption and completion of all things in the ‚eternal peace‘ of creation (God’s eternal sabbath as another important concept in Moltmann’s theology). Moltmann sees the ‚beginning‘ and ‚the end‘ of creation as one comprehensive reality – according to the ‚cosmic Christology‘ the ‚messianic Wisdom‘ was the source of all what came to existence and in this ‚Wisdom Messiah‘ all that exists receives its continuation.²⁴⁰

Moltmann’s deliberations about the Christ’s and Spirit’s mediation in creation are eventually understood as the invitation to explore our ‚heavenly calling‘ to participate in this mediation as the partakers of the divine reality. Those various aspects (held

²³⁹ „The wisdom of creation is pre-existent in all things, the inexhaustible creative ground of cosmic history – and therefore also *inexistent, inherent in all things*. Wisdom is creation’s mediatrix and its sustainer and gives all things their cohesion and their harmony which lends them their abiding quality. Logos christology is originally Wisdom christology, and is as such cosmic christology.“; Moltmann, *The Way of Jesus Christ*, p. 281-282 [emphasis, RL].

²⁴⁰ „This Christ is the divine foundation of creation and therefore its inexhaustibly creative ground; and he is this in a threefold sense: (1) All things from God are created ‚through‘ him and through him find their forms and the community that binds them together; (2) All things from God are made fast ‚in him‘, their lives and existence being sustained against the threat of chaos by his presence in them; (3) All things are ‚for him‘ – all things are created for his sake, and for him all things are waiting (...) Because everything is created through him, he preserves everything and rules it so that it draws towards his goal.“; *Ibid.*, p. 287.

together) give us a glimpse of the fundamental eschatological unity which we await and hope to see in the end: „*This hope projects eschatological wholeness into a fragmented historical process (...) hope for a re-cognition of the unity that underlies all existence.*“²⁴¹ Moltmann stresses the common future of scientists and theologians, the perspective which has the potential ‚to bridge‘ the historical schisms and alleviate the present tension between them. Although their respective ‚approaches to reality‘ and their conclusions can contradict each other, what unites them is the shared responsibility for the future of our world. In his book *Science and Wisdom* Moltmann distinguishes between two kinds of knowledge: „One reduces scientific discoveries to mere instrumentalities for the manipulation and exploitation of the physical world. The other leads to wisdom, that is, to an understanding that moral and spiritual limits exist beyond which humans, in their use of the physical world, venture at their peril.“²⁴²

Moltmann criticizes the ‚division‘ of knowledge resulting in strict separation of the natural sciences from the humanities. He refers to this ‚bifurcation in knowledge‘ as to the ‚double track of Western mind‘ which ultimately resulted in the lost access of ‚the world‘ to wisdom. He puts forward a significant shift in theological concerns in order to solve that cleavage, namely that

²⁴¹ Stork, „A Theologian among Scientists: ‚Wisdom‘ as interdisciplinary space for science and theology“, p. 214

²⁴² Ibid.; Stork’s paper provides the illuminating summary of Moltmann’s ‚Science and Wisdom‘ as well as his own interpretation of this important Moltmann’s concept and its prospects for the future of the dialogue of theology and science.

theology should (besides its basic task within the community of faith) – step out and reflect the problems of contemporary world and „embark on an experimental quest along with others ,for the truth of the whole and the salvation of a torn and disrupted world‘.“²⁴³ This would entail the ‚reevaluation‘ of the understanding of truth on the side of the Protestant theology, which in many cases surrendered the traditional concept of the unity of truth under the pressure of rationalism.²⁴⁴ Moltmann argues for the strong ethical commitment of science and theology; theology can provide the needed moral base so that the sciences can bring to completion their ‚calling‘ in the world. The ‚open future‘ of the universe and our knowledge of it can lead us to a new ‚mode of reflexion‘ seeing human subject as the ‚participant‘ (referring to the Hebrew tradition of ‚participative knowledge‘) in the whole process of the ‚disclosure of being‘, thus seeing itself as a part of history with nature. Contemplating the ‚inner essences‘, the ‚ends‘ and ‚purposes‘ of all things, can teach us about our responsibility for the shared future of the entire creation.

Finally, the following summary statements about the ‚wisdom‘ as the ‚interdisciplinary space‘ for science and theology can be offered which try to express the core ideas of Moltmann’s *Science and Wisdom*. His suggestion can lead us to the awareness of ‚the

²⁴³ Moltmann, *Science and Wisdom*, p. 7.

²⁴⁴ Stork refers to A. Toynbee’s observation: „Truth became disrupted mental territory; henceforward there were two independent authorities, prophetic Revelation and philosophical Reason, each of which claimed sovereign jurisdiction over the intellect’s whole field of action.“; in: Stork, *a Theologian among Scientists*, p. 215.

interwoven complexity of existence and [thereby we can] experience the oneness both by revelation and by reason‘:

(a) The universe may be understood as the expression of a metaphysical idea, as information, or wisdom.

(b) We can know much about a putative creator within the physical universe, but without theology we cannot derive meaning from this knowledge.

(c) While we may conceive of a science without theology, a theology without reference to science is out of step with reality; if (a) is affirmed, the same must be said of science without reference to theology.²⁴⁵

Moltmann is convinced that science today must focus on the network of reciprocal relationships, in particular the relationship between humans and nature. He wrestles with the legacy of ‚modern‘ scientific thought, in which the nature still tends to be abstracted from history which results in the sheer absence of any reference to the spiritual dimension of the world and the inherent wisdom present in it. The attitude of modern science and knowledge to dominate and manipulate with ‚the things in the world‘ should be replaced with the attitude of ‚awe‘ and ‚wonder‘ (*thaumazein*) as the root of all knowledge. In astonishment we are no longer the ‚owners and creators‘ of the ‚experience of knowing‘, but more the mere receivers of the disclosure of what has been hidden and know is being given to our perception: *„[D]iscoveries can happen to us passively, and*

²⁴⁵ Stork, *A Theologian Among Scientists*, p. 219-220.

*then ,our eyes are opened‘ and ,the scales fall from our eyes‘.*²⁴⁶ Moltmann wants to demonstrate that the astonishment over nature could lead to the fear of God, whereas the fear of God can enhance the ,awe‘ of nature resulting in more humble, ,ethical‘ (and ,ecological‘) dealing of human beings with nature. Science itself could become, according to Moltmann, a ,participant‘ in the interplay between humans and the cosmos, to open itself in the reciprocal relationship with *the Other*. The whole body of Moltmann’s theology was ,designed‘ with the ,ear inclined‘ towards the ,world of science‘ and formulated in a scientific respect so that it can become a suitable partner in the dialogue with science. His suggestion stands out as a promising invitation to move freely in this new theological territory.

Many aspects of Alexei Nesteruk’s proposition are in tune with Moltmann’s vision. Nesteruk wants to stress mainly the personal character of both knowledge and wisdom and establishes a strong link of both to the concept of truth (i.e. he is calling for a personal commitment to the ,personal‘ truth). The whole of his research should be read in the light of the early Christian, patristic views and their tendency to oppose the heavenly and earthly wisdom. Although science was associated with the earthly wisdom (and thus potentially despised), Nesteruk’s aim is to show the religious dimension of science and technology. Scientists study the good creation, the handiwork of

²⁴⁶ Moltmann, *Science and Wisdom*, p. 143; See especially the important chapter 10 (*Science and Wisdom*).

the Wisdom of God the Creator and thus, together with theologians they can share in the common search for the new creation spirituality. Nesteruk also observes that much of the discussion about wisdom (or the lack thereof) in the scientific enterprise is reduced to the ethical discourse. Although ethics and its implications for the dialogue constitute an important part of Nesteruk's understanding of interaction of science and theology, he wants to stress the etymological meaning of 'wisdom' with its ontological reference to 'being'. Faithful to the tradition of the Greek Fathers he stresses the fundamentally existential character of their theology and argues for the relevance of Patristic understanding of wisdom of existence to the contemporary dialogue between science and theology: „[T]he message of Christian theology was not the possibility of better life, but the fullness of life as such through articulating the difference between being and non-being.“²⁴⁷ The core of Nesteruk's approach can be summarized in the following assertion: „[T]he quest for wisdom of existence-communion is essentially the search for personhood as the link between the world (articulated by humanity) and its ultimate source – the person of God.“²⁴⁸

The main difference between the 'wisdom' of science and that of theology can be demonstrated by contrasting two basic questions which can conditionally be understood as the 'guiding principles' of the scientific and theological enquiry respectively.

²⁴⁷ Nesteruk, *Wisdom through Communion and Personhood*, p. 75; in: Meisinger, Drees, Liana; *Wisdom or Knowledge?*

²⁴⁸ *Ibid.*, p. 82.

Science principally asks ‚What is the universe?‘ or ‚What is a human being?‘, but is not able to answer the persistent and precarious ‚background issue‘ of ‚Why is the universe and the intelligent life in it?‘. Nesteruk asserts that the mystery of existence cannot be addressed by science alone. He speaks about the *apophatic* mystery of wisdom, the paradox of wisdom ‚present in absence‘ - the truth and wisdom of existence is absent from scientific discourse. Science is ‚wise‘, because its very definition manifests created wisdom, but science is also ‚unwise‘ because it does not deal with its own *foundations*, it does not understand clearly its *limits* and is not concerned with and does not anticipate its *ultimate goal*, its *telos*.²⁴⁹ The mere existence of those ultimate questions (the questions of *purpose* in particular) points to a human need for coherence and meaning in their search for understanding of their place in the universe. Nesteruk wants to point out the cooperation of science and theology in their mutual quest for truth (or wisdom) and encourages theology to bring the scientific knowledge into its focus. Faith in one God is the ‚guarantee‘ of the one and all-embracing truth in which the various conceptions of truth (and the ‚truths‘ of particular modes of knowledge) could be potentially included as in the one coherent whole composed of ‚individual‘ but interconnected ‚things‘ (parts).

Theological contemplation (which approaches wisdom only in the context of communion and personhood) gives meaning to

²⁴⁹ Ibid., p. 75.

science as related to wisdom - theology ,explicates‘ wisdom as that ,hidden‘ link between the world and God who created it. Scientists and theologians on their shared ,way towards wisdom‘ also approach the essence of the dialogue between science and theology which can now be seen as an attempt to address the ,paradox of wisdom‘.²⁵⁰

What is implied by the paradox is the centrality of the problem of human subject for the dialogue of science and theology. Nesteruk points to the problematic attitude of modern science with its lack (and avoidance) of any conjectures about human subjectivity, that is, about human reason as the ground of all scientific theories. The whole of Nesteruk’s research aims to deal with and provide an alternative to the prevalent dominance of scientific naturalistic rationalism which furthers the existential crisis of the sciences, (i.e., their own foundations became incomprehensible, as we will see in the following chapter, expounding the most important elements of Edmund Husserl’s philosophical conception). The ,human factor‘ in science, the active human subjectivity constituting all scientific theories became irrelevant for the resulting scientific picture of reality.

²⁵⁰ „The content of the paradox represents an intentional curiosity of human subjectivity (puzzled by its non-trivial position in the universe), being split between its natural attitude, when it interprets humanity as a thing among other things, and its philosophical attitude, when it realizes that human subjectivity contains in itself the whole universe as the integrity of its conscious acts. It points to a fundamental mystery of human incarnate (embodied) subjectivity.“; Ibid., p. 84.

Viewed this way, the apophatic mystery of wisdom, its ‚presence in absence‘ in the scientific theories can be extended towards the paradox of personhood (i.e., human ‚creators of science‘ present in absence). Nesteruk argues that theology can resolve the tension present in this paradoxical situation. He stresses the correlation of the intelligibility of the universe with human intelligence – the inherent wisdom of creation – and outlines the implicit theological dimension in this paradox. It tries to express the essence of humanity as made in the image of God (*imago Dei* as a gift to ‚imitate‘ the personhood of God). „Humans as the divine image were granted reason in order to be in dialogical relationship with another reason, the reason of God.“²⁵¹ Nesteruk also holds to the trinitarian interpretation of *imago Dei* and stresses the trichotomic understanding of human being and its interactions with the world: „It is through Christ, the Logos of God, who created all things, and granted man a chance to participate in matter as an effected event because of his composition of body, mind and intellect (nous), that humankind knows matter and that matter knows itself through humankind.“²⁵²

At this point it is necessary to look closer at the theological anthropology of Maximus the Confessor who developed the content of the ‚paradox of personhood‘ in his theology

²⁵¹ Nesteruk, *Light from the East*, p. 105.

²⁵² *Ibid.*

understanding man as *microcosm* and *mediator*.²⁵³ The main stress should be laid on Maximus´ understanding of the divine Logos and his ‚ontological reflexions‘ on the ‚principles of creation‘, i.e. *logoi* of all things.²⁵⁴

Nesteruk points out the similarity between the *logoi* of human beings and the *logoi* of the universe which both originate in their common source, the divine Logos. But he also mentions the asymmetry between them, i.e. the specific ‚hypostatic‘ (personal) character of human *logoi* (as contrasted to other ‚things‘ in the universe, the various non-hypostatic/impersonal works of creation), which are inherent in the Logos and its openness for *communion* with God. Maximus´ speculation about the created order should be understood as the further development of the theological understanding of the world through the prism of the central doctrines of Christology: Christ is now understood as the Mediator of the universe whereas the ‚intelligible‘ and the ‚sensible‘ world is viewed as the outward manifestation of God´s

²⁵³ „Mediation between science and theology is only possible because of the position of humans as microcosm – as the only beings capable to mediate between the sensible and the intelligible, between the created and God. Human beings can think of themselves in twofold way – either bounding themselves to the necessity of the world, and thus denying its own freedom from this world; on the other hand, being spiritually advanced, to long for freedom from this world, looking for its source beyond the world in God. It is this aspect of humankind´s mediating position between the world and God that makes mediation between science and theology possible at all.“; Nesteruk, *Light from the East*; p.68, 108.

²⁵⁴ „All that is created is created according to divine intention, the subject of which is the personal Logos, who entered this world in history and became man to fulfill the purpose of creation and of man as its microcosm (...) To Maximus, the *logoi* are precisely the divine intentions (...) the Logos of God and God always and in everything wishes to carry out the mystery of His embodiment, and he emphasizes that the *logoi* reveal the divine purpose.“; Thunberg, *Man and the Cosmos*, p. 133-134.

own ideas. Human beings are called to participate in this divine mediation. This allows Nesteruk to assert the indispensable role of ‚personhood‘ and ‚communion‘ in the dialogue of science and theology.²⁵⁵

Nesteruk stresses the importance of the human insight about the universe, the ability to contemplate the *logoi* of creation and comprehend the idea of the universe as a whole. He contends that the human hypostatic constitution (*imago Dei*) - with its fundamental unity of the sensible and intelligible - guarantees the unity of the empirical and noetic in the universe (i.e., the observed empirical universe including human ‚living organisms‘ vs. a ‚global idea‘ of the universe articulated by human subjectivity).²⁵⁶ Faith in the image of God in man makes it also possible to ‚reveal‘ and speak about the divine intention behind creation and our place in it.²⁵⁷ The contemplation of *logoi* of creation eventuates in a mystical communion with the Logos as the ‚Source‘ and ‚Foundation‘ of all things - the universe as creation is thus contemplated by human mind (*nous*) as if from ‚within‘ or from ‚above‘.

This ‚interior‘ comprehension ‚illuminates‘ not only the inner essences of created things but also brings the eschatological

²⁵⁵ Nesteruk, *Wisdom through Communion and Personhood*, p. 87; in: Meisinger, Drees, Liana; *Wisdom or Knowledge?* Nesteruk claims: „It is only through this communion that the wisdom regarding the role of humanity in the universe and the mystery of the co-ordination of human subjectivity with the whole universe can be articulated as the wisdom of being a person who is able to receive God’s revelation about the wisdom of all existence as a personal gift of communication.“

²⁵⁶ *Ibid.*

²⁵⁷ Thunberg, *Man and the Cosmos*, p. 137.

dimension into focus. Logoi of creation could be also understood as the ‚principles‘ of the future perfection of all things. Nesteruk concludes with an important observation that human beings are not satisfied with the ‚naturalistic‘ explanations of science in their quest for truth. The ‚natural‘ explanation of the meaning of all things has to be supplemented by the ‚knowledge‘ of their underlying ‚ends‘ and ‚purposes‘ comprehended in the light of the goals and aspirations of humanity in creation.²⁵⁸

Together with Nesteruk and Moltmann we can speak about the expectation (longing) of all creation for its final completion (consummation) in God’s coming glory when God will be ‚all in all‘. The ‚awe‘ and ‚fear‘ of God is the beginning of wisdom as well as the end - the true knowledge of God. Ultimately, the concept of ‚wisdom‘ as the interdisciplinary space for the dialogue of science and theology is capable to provide the pointer towards the ‚completeness of truth‘ about the universe in which we ‚participate‘ and about God in whom ‚we live and move and have our being‘ (Acts 17, 28). The scientific observations and measurements (as the expression of human curiosity about its unique position in the universe) on the one hand and the ‚wisdom of theology‘ revealed by God and ‚stored‘ and ‚refined‘ as ‚primordial memory‘ (in theological traditions) on the other can be seen as the ‚two tracks of human knowledge‘ leading towards

²⁵⁸ „It is in this sense that humanity as personhood longs for wisdom which is *in* this world – through man – but not *of* this world. This longing points toward the *telos* of all creaturehood, in which the paradox of wisdom present in absence, as explicated in the science-religion discussion, will have to be finally resolved.“; Nesteruk, *Wisdom through Communion and Personhood*, p. 89; in: Meisinger, Drees, Liana; *Wisdom or Knowledge?* [emphasis, AN]

the fullness of one truth of God the Creator. This view also allows us to see more clearly the ‚dual role‘ theology can play at academia.

Theology (dogmatics) could be treated at once as science (as was the case in Murphy-Ellis’s proposition of theology as ‚scientific research program‘) – with the main aim to give account of its hope, the ‚content‘ of the self-revelation of God (as the starting point and ‚measuring stick‘ of all theologizing which strives to provide a faithful account of God’s identity) – as well as wisdom (as was stressed by Moltmann and Nesteruk) whose primary task is to elucidate the truth of Christian faith and the character of the ultimate reality. In this latter case the ‚ecclesial dimension‘ - securing the ‚existential‘ communion of believers - is the indispensable element, as was argued by Nesteruk. The challenge for ‚theology as wisdom‘ is to provide a coherent interpretation of its content – the central ‚truths‘ of theology – in the light of human knowledge and experience reflected as a whole. Although provisional in the current corrupted state of humankind, the search for wisdom constitutes the human calling and its hoped for ‚telos‘ - the ‚fullness of man‘ (and his knowledge of all things) in God.

4. The Universe as Communion: Alexei Nesteruk's Model of the Dialogue of Theology and Science

Our discussion in the previous chapter aimed to show that the dialogue of theology with science has to start with elucidation of the essential philosophical and theological problem of human personhood (manifested in its ‚absence‘ as was pointed out in the case of science). As we have seen in our discussion with Moltmann, „*embodiment is the existential point of intersection between history and nature in human beings.*“²⁵⁹ The aim of Nesteruk's research is to explicate further the mystery of incarnation (embodiment), where he is mainly concerned with the question of the ‚essence‘ and the existential relevance of the dialogue of science and theology as it is practiced in the West. The main difficulty could be overcome if the attention is properly shifted towards the ‚roots of science‘ (the issue of its contingent facticity) including the historical and ‚existential‘ context of its development. This could provide the needed starting point (and the common ground) for the responsible and intelligible dialogue of theology with science. Nesteruk stresses the ‚top-down direction‘ of their mutual interaction and claims that the dialogue receives its sense as an intention to *establish a relationship between theology and science on the level of the*

²⁵⁹ Moltmann, *The Way of Jesus Christ*, p. XVI.

infinite tasks of humanity, driven by the Holy Spirit from the future age. [i.e., the eschatological intentionality, RL].

Thus, the ‚essence‘ of the dialogue of theology and science could be found if we examine ‚humanity and its telos‘, the ‚cumulative way‘ of progress in history (i.e., the formation of various traditions of philosophy, theology and science), which outwardly manifests the telos towards which the world of human beings is ‚developing‘. Nesteruk provides the following summary of his approach to the dialogue:

„We would like to link science and theology by attempting the ascension from cosmology to God not in the well-known fashion of natural theology and arguments for God’s existence, but via human persons. Cosmology, being subjected to a certain phenomenological analysis, reveals its authors – human persons – who are capable of predicating the universe through the power of consciousness granted by that invisible origin, communion with whom reveals the true and living God of theology. The universe as a medium of person’s facticity reveals itself as a mode of communion with God. We will argue that transcendence in cosmology is only possible through articulating the conditions of communion with the universe, which inevitably leads to human persons as existential events of disclosure and then to communion with God as the pillar and ground of facticity of all.“²⁶⁰

The philosophical appropriation of science (not to say a philosophy of science) suggested by Nesteruk could be understood as a branch of philosophical anthropology which in turn can be related to his phenomenological understanding of

²⁶⁰ Nesteruk, *The Universe as Communion*, p. 222.

theology. Finally, the ‚mediating‘ between science and theology ‚reveals‘ the sense of the dialogue of theology and science which could be understood as the search for truth, the ‚encounter‘ of two traditions of one human spirit in their mutual interactions, which are driven by some common teleology.

The aim of this chapter is to demonstrate Nesteruk’s model of the dialogue - his phenomenological understanding of theology, question the ‚roots‘ of science and examine the meeting point of both in the practice of their ongoing dialogue. All of it would be inconceivable without ‚mediatory‘ role of philosophy. Nesteruk finds phenomenology as the most useful conceptual framework capable of mediating between theology and science. The major motivation to employ phenomenological method is to deal with *‚the most unsatisfactory issue of epistemological (or even ontological) uniformity between science and theology that was presumed in the dialogue between them.‘*²⁶¹ As the main benefits of phenomenology Nesteruk stresses not only its basic ‚conceptual tools‘ and ‚concepts‘ (phenomenological reduction; the concepts of intentionality, the live-world etc.) but also the historical position of phenomenology standing in transition from modernism to postmodernism.

²⁶¹ Nesteruk A., *The Universe as Communion*, p. 8.

4.1. The Mediating Role of Phenomenology in the Dialogue of Theology and Science

Alexei Nesteruk is considered to be the most competent continuator of (and a most fruitful contributor to) the so called neopatristic synthesis in theology, a ‚project‘ advocated by the prominent Eastern Orthodox theologians of the twentieth century - Georges Florovsky and Vladimir Lossky. The motivation behind Nesteruk’s research program can be summarized as follows:

„There is no other starting point for the Eastern Orthodox theology (aiming to reflect the problems of our present-day civilization) than the return to the theme of ‚cosmos‘ and the issue of man’s position within it as it was developed by the Fathers of the church.“²⁶²

To expand on this matter we could also paraphrase Dumitru Staniloae, another key twentieth century Orthodox theologian, who asserts that it is necessary for theology to emphasize the *destiny of humankind* and the *meaning of history* which in turn implies the need to embrace humanity and the cosmos in the context of *the aspirations of all humankind*.²⁶³ Nesteruk follows Florovsky who called for the renewal of theology and the reversal to its roots in the theology of the Fathers. This claim means – on the one hand - that theology cannot be detached from the experience of the Church. Nesteruk asserts that it must be preserved in all interactions with the contemporary world as

²⁶² Obolevitch T., *Filozofia rosyjskiego renesansu neopatrystycznego*, p. 286 [translated, RL].

²⁶³ Staniloae D., *Theology and the Church*, p. 224.

a constant factor of any theological activity. On the other hand, the appeal to the Fathers brings about the issue of a deep and intensive dialogue which the Church Fathers lead with the philosophy of their times (culture in a broad sense).

This dual emphasis, that is, on the *ecclesial dimension* and the *intensive dialogue of the church with the surrounding culture*, is the main feature of Nesteruk's approach. He claims that it is impossible to strictly separate science from theology, hence the necessity of the dialogue which could not be separated from the experience of God in the community of the church. Paraphrasing the conclusion of Obolevitch's observation, the issue of mediating between science and theology cannot be solved on the 'neutral ground', but solely in the light of faith, understood not as a concrete set of beliefs, but as 'existential' faith, as a personal participation in the life of the church.²⁶⁴ Nesteruk's aim is to provide the specifically Eastern Orthodox contribution to the dialogue of science and theology and is preoccupied with a question about the sense of the whole enterprise of this dialogue and treats it quite specifically as the quest to restore the 'disintegrated modalities of the human spirit'.²⁶⁵

²⁶⁴ Obolevitch T., *Filozofia rosyjskiego renesansu neopatrystycznego*, p. 287.

²⁶⁵ „This approach is familiar to the Orthodox tradition which did not, according to Nesteruk, experience a clash between science and religion like their counterparts in the West. The fact that Eastern Christianity had a different experience of the relation between religion and science is the platform from which Nesteruk departs and it is from this platform that he wants to shed new light on the contemporary debate. He explains this insight by focussing on those aspects of Eastern and Western Christianity which share a common ground – namely, in the writings of the Early Church Fathers. They defended the Christian faith against an atheist environment in a similar manner to the present day and therefore can offer guidelines for modern theological development.“; le Roux A.K., *The Universe as Communion*, p. 1.

Nesteruk claims that this goal could be reached only if we refer both science and theology to ‚the common roots of their different traditions‘. To achieve this goal (on the side of the natural sciences) Nesteruk resorts to phenomenology to draw knowledge and inspiration from it. The last work of Edmund Husserl, ‚*The Crisis of European Sciences*‘ (henceforth *Crisis*) serves as an important parallel with the program of Georges Florovsky who attempted to deal with the problems of modern Orthodox theology which he found to be in crisis. Similarly Husserl diagnosed the crisis of modern European sciences and attempted to solve it by referring sciences back to their roots in philosophy.

Nesteruk’s research is also indebted to and deeply influenced by the works of Thomas Torrance and his approach to the dialogue of theology and science.²⁶⁶ Torrance sees science and theology as two unique realms which have their own unique subject matter, yet what comes into foreground is their claim that faith is the ‚first ground‘ of both of them. Nesteruk builds his argumentation on the main claim of Torrance’s writings: „[T]he world is indeed contingent upon God as it is a created reality and dependent upon Him in its ordering, yet it is still

²⁶⁶ Torrance T., *Theological Science*, p. XIII. It is especially the following Torrance’s differentiation which is important for Nesteruk: „As long as we think of the dialogue between *science* and *religion* we shall not escape from romantic naturalism (...) Rather must we be concerned with the dialogue between *science* and *theology*, and between the philosophy of natural science and the philosophy of theological science in the common struggle for scientific method on their proper ground and their own distinctive fields.“ [emphasis, TT]

independent of God due to God's ultimate transcendence."²⁶⁷ Ultimately, he is trying to reformulate and integrate some of Torrance's insights carefully into his Eastern Orthodox tradition. Nesteruk's own description of his goal, stated in the early work *Light from the East*, gives another important 'illustration' of the basic framework of his research²⁶⁸ His following books, *The Universe as Communion* and *The Sense of the Universe* are to be seen as the continuation and further development (i.e., his attempts to provide a 'fuller' and more accurate expression) of this basic vision.

Eastern Orthodox theology has always been understood as an attempt to articulate the experience of faith, which was considered to be the ground of all knowledge. However, this experience cannot be fully grasped by methods of discursive philosophy and/or sciences. Herein lies the main problem and objection of Nesteruk (and the Orthodox theology in general) who claims that the role assigned to discursive thinking (as isolated from experience of faith) in the Western theological method shows the illegitimate transgression of the limits (or the boundaries) of its 'field of application'. This results in an inadmissible subordination of the Divine realities to rational philosophy. And it is also here where Nesteruk appeals to

²⁶⁷ See more in: Heren, *Scientific or Existential? A Comparison of Thomas Torrance to Alexei Nesteruk and whether the latter uses what he former refers to as 'natural theology'*. Heren, p. 9.

²⁶⁸ „The split between theology and science can be overcome if both are reinstated to their proper relationship to the eucharist, understood in cosmic terms as the *offering of creation back to God through art, science and technology.*“; Nesteruk, *Light from the East*, p. 2.

phenomenological philosophy with its phenomenological (transcendental) reduction, being in a certain sense a claim for ‚another attitude‘ to reality (and thus also to the whole enterprise of the science-theology dialogue).²⁶⁹

He draws a parallel between the phenomenological reduction and the apophatic attitude of the Orthodox theology which in turn allows him, on the one hand, to relate the whole theological enterprise to philosophy. On the other hand, Husserl’s aim to ‚deconstruct‘ natural science by revealing its pre-theoretical ground and roots in philosophy helps him to prepare the ground for mediation between science and theology. Applying phenomenological method enables Nesteruk to explicate further some premodern patristic ideas and to deal with epistemological foundations of modern science.

The elucidating of the whole process of his argumentation will lead us to address three substantial issues: (1) the importance of the *historical dimension* of human activity (tradition in theology, philosophy and science) and its *transcendental meaning*; (2) the presence of a *hidden teleology* in research (telos of explication) and finally (3) the teleological *convergence of intentionalities* of human subjectivity. Thus, phenomenology provides methodological tools for the evaluation of science leading to a ‚discovery‘ of the hidden pre-scientific contexts which in turn bring some limitations for science and serve as pointers to the ultimate foundation of all sciences. „In this, the dialogue

²⁶⁹ Nesteruk, *The Sense of the Universe*, p. 52.

between theology and science will *acquire features of a phenomenological project* where phenomenology is employed as a particular method in *exercising a critical function of theological commitment*“.²⁷⁰

Nesteruk suggests that addressing these pre-scientific contexts and relating them to theology can be a promising way of mediation between theology and science. The core of Nesteruk approach can be summarized as follows:

„Phenomenology as a universal science aims to understand the life-world, and therefore to explicate the foundations of all objective sciences. Here (...) phenomenology implicitly transcends the immanentism of intentional consciousness and implies the otherness of all contingent facticity of noetico-noematic givenness of being (...) In spite of all existing reservations, the phenomenological project is destined to become a theological project, although in a strictly limited, philosophical sense.“²⁷¹

Nesteruk’s goal is to explicate the convergence of theology and phenomenology and then to relate theology to science. To do so he begins with the chosen key concepts from Husserl’s phenomenology. Eventually he needs to go ‚beyond Husserl‘ towards the ‚theological turn in phenomenology‘²⁷² in order to be

²⁷⁰ Nesteruk, *The Sense of the Universe*, p. 1-85.

²⁷¹ Nesteruk A., *The Universe as Communion*, p. 87 [emphasis, RL].

²⁷² ‚Theological Turn‘ in phenomenology is a term coined by Dominique Janicaud who criticized the ‚smuggling‘ of theological issues into phenomenological research. The revived interest in religion which was traceable in French phenomenology since the 1980s and increasing in the 1990s could be represented by the works of Emmanuel Levinas, Paul Ricoeur, Jean-Luc Marion, Jean-Francois Courtine, Jean-Louis Chretien, and Michel Henry. See more in: Janicaud D., *Phenomenology and the ‚Theological Turn‘*; Leask, Cassidy: *Givenness*

able to address the important theological issue of God's transcendence (i.e., 'transcendence in immanence').

4.2. The Place of Husserl's *Crisis* in Nesteruk's Research

Nesteruk appeals to Husserl's conception of the crisis of European sciences which consists in the fact that the sciences are not able to clarify their contingent facticity and thus the foundation of their sense is 'hidden'. Husserl finds the essence of the crisis in the 'fact' that the *telos* (which was revealed to European humanity by the ancient Greek philosophy) was lost in the modern process of *objectification* and *naturalization* of reality. The problem lies, according to Husserl, in the fact that the adequate attention was not given to the preconditions of this process. He calls for a clarification and (in his last work, *Crisis*) he embarks on the quest to find the way into phenomenological/transcendental philosophy by questioning the 'world of our immediate experience' (i.e. reflection upon '*Lebenswelt*', the *life-world*).²⁷³ Thus, the main emphasis on the 'framework idea' of Husserl's last work (the European sciences in the state of crisis) can be elucidated by Nesteruk's analysis of the four (interrelated) key issues drawn from *Crisis* and

and God; Bornemark, *Ruin: Phenomenology and Religion: New Frontiers*; Horton-Parker, *Tracking the Theological 'Turn'. The Pneumatological Imagination and the Renewal of Metaphysics and Theology in the 21st Century*.

²⁷³ The whole part a of the main chapter of Husserl's 'The Crisis of European Sciences' (i.e. part III.) describes this process in detail.

employed in his research: (1) the concept of the *life-world*; (2) Husserl's *teleology*; (3) *paradox of human subjectivity* and the process of (4) *mathematization of nature* and the possibility of ‚deconstruction‘ of the notion of ‚nature‘ (and the employment of this concept in the dialogue of theology with the sciences). Nesteruk follows Husserl (by implementing the basic conceptual language of phenomenology) and develops his specific concept of a dual intentionality (intentionality of faith). He claims that the scientific (theoretical) knowledge and the ‚knowledge‘ of faith are two distinct activities of human embodied subjectivity (which itself is ‚grounded‘ in the ‚Otherness of God‘ as its ‚inconceivable‘ source and its ‚vanishing point‘). Each of them expresses differently (but intrinsically in a convergent way) the human situation in the world. Nesteruk also wants to show that ‚faith‘ for Husserl is a ‚faith in teleology‘ and aims to re-interpret Husserl's concepts in an existential manner.

The concept of the life-world was conceived of as the immediate *pre-scientific world of our intuition*.²⁷⁴ It also included the problem of meaning or relevance of science for a historical existence of a particular human being. As the ‚immediate world of experience‘ or simply the ‚world of our life‘ it was conceived as ‚the whole‘, the *horizon* of any instant experience. Thus, in the final stage of Husserl's philosophy this concept was extended to

²⁷⁴ „The life-world, for us who wakenly live in it, is always there, existing in advance for us, the ‚ground‘ of all praxis, whether theoretical or extra-theoretical. The world is pre-given to us, the waking, always somehow practically interested subjects, not occasionally but always and necessarily as the universal field of all actual and possible praxis, as horizon. To live is always to live-in-certainty-of-the-world.“; Husserl, *Crisis* § 37.

the universal problem of being and truth. His goal was to develop a ‚full ontology‘, the ontology of the *life-world* (*Lebenswelt*).

This *historical* ‚world of actual‘ life encompasses also the life which theorizes about the world. The whole realm of objective science as the product of the activity of human subjectivity (having roots in the life-world) is seen as one specific ‚historical artefact‘ among other achievements of the human spirit. In that respect, the scientific ‚picture of the world‘ is ‚relativized‘ and finds its position in the ‚whole of reality‘.

„Husserl considered phenomenology as the first strictly scientific version of transcendental idealism, but he also held that phenomenology transcends the traditional idealism-realism distinction.“²⁷⁵ It is possible to outline the intimate connection of sciences and the life-world as follows:

„(1) The world of science is *part* of the life-world; (2) Scientific statements get their *meaning* [Sinn, RL] by being embedded in the life-world; (3) The sciences are *justified* through the life-world. There is an interplay between this point and point one above: The sciences are justified because they belong to the life-world, and at the same time, they belong to the life-world because they are conceived of as describing the world, as claiming to be true.“²⁷⁶

²⁷⁵ Follesdal D., *The Lebenswelt in Husserl* (§ 2), in Hyder, Rheinberger; *Science and the Life-World*, p. 32.

²⁷⁶ Hyder, Rheinberger; *Science and the Life-World*, p. 43-44 [emphasis, FD]; The common ‚foundationalist‘ interpretation of Husserl’s approach is contested: „*An opinion is justified by being brought into ‚reflective equilibrium‘ with the doxa of our life-world.*“ It might look surprising to claim the major importance of the ‚subjective‘ and ‚relative‘ (doxa) in the

The concept of the life-world is a ‚pointer‘ to the ‚grounds‘ of rationality. Science ‚grows‘ from the life-world, but is not thematized by science. It is possible to see it only after a certain ‚deconstruction‘ of all scientific concepts (or if all our ‚purposes‘ in our interaction with the world are ‚bracketed‘). Thus, thematizing the life-world provides sciences with *telos of explication*, since the structures of the life-world help to elucidate the active (constitutive) role of transcendental subjectivity. The problems with the ‚objectivistic‘ or ‚naturalistic‘ tendencies of science (i.e., the main causes of the crisis) concealing the life-world as the medium of immediate indwelling of human beings in the world could be overcome.

To study science (or *rationality* in general) means for Husserl to search in history for a point where science (as a new approach – a ‚theoretical attitude‘ to the world) appeared. Science (and philosophy) as the new approach leaves behind the common tasks of everyday life in favor of the ideal form of life as an *infinite task of reason*. The objective ‚realm‘ of all sciences is the correlate of this teleological idea (i.e., an infinite pole) which orientates the scientist who is subjected to it.²⁷⁷

The life-world is relative to all contexts (e.g. cultures), but it has some basic, ‚universal‘ structures (temporality, spatiality

process of justification of our knowledge. Nevertheless, there is no other possibility, according to Husserl – the first thing we have is the intuition of this pre-scientific life-world with its inherent beliefs, expectations and ‚takings‘ (which are not thematized).

²⁷⁷ Bernet, Kern, Marbach; Edmund Husserl: *Darstellung seines Denkens* (especially in the chapter IX) provides more specific information concerning the Life-world (*Lebenswelt*), the development of this concept and its relation to and significance for the ‚realm of science‘.

etc.) which are given by our ‚corporal‘ experience of the world. As ‚embodied agents‘ in our concrete situatedness we can conceive of our ‚position‘ as the center of ‚manifestation‘ of the world. Husserl wants to develop the ontology of the life-world as an universal science, whose aim is to study those structures, which in turn helps to clarify the active role of ‚historical‘ consciousness (living embodied subject) in the world. *Nesteruk’s approach to the dialogue can be seen as the ‚theological development‘ of those basic concepts of Husserl.*

Nesteruk differentiates between two ‚attitudes to reality‘: in the *natural attitude* the life-world ‚is there‘, but in absence, that is, natural sciences conceal this primary ground of sense. Theology, on the other hand, works in a *phenomenological attitude* (as will be argued in the following sections), aims to articulate this immediate existential condition of humanity.

Employing the basic phenomenological language he asks ‚what is given?‘ – only the ‚objects‘ of our consciousness or also ‚that‘ which is the presupposition of their constitution? Expanding on this question he is eventually able to speak about the ‚event‘ of life as ‚unfolding‘ of our ‚existence in the world‘ perceived as a gift (which *is being given*) by God the Creator.²⁷⁸ Questioning the ‚modalities‘ in which the world is given,

²⁷⁸ Nesteruk, *The Universe as Communion*, p. 105; Nesteruk mentions the ‚turn‘ in his questioning and argumentation: „The question shifts toward the mystery of the universe and God as being given to us in the events of their presence and absence. The existential question about the underlying facticity of the human subjectivity and its openness to the world as founded in its otherness is replaced here by the immediate experience of presence and absence of the universe and God, the events by virtue of which the dialogue between theology and science occurs.“

Nesteruk needs to go beyond Husserl and (together with some of the phenomenologists of the ‚theological turn‘) he wants to examine the concept of the life-world in the context of theology.

The theological articulation of the life-world, according to Nesteruk, is not centered around the ‚natural core‘ of the world, but mainly around the human ‚existence in situation‘, as it is affirmed through a *personal participation* or *communion* of human beings in the Divine.²⁷⁹

There are several aspects of the concept of the life-world which are important for Nesteruk. First of all, he stresses the *pregivenness of the life-world*. The internal ‚intentional world‘ of human subjectivity and even the ‚natural attitude‘ of science manifest the belief in existence of the world. The existence of the world and the ‚reality‘ of the content of our thoughts about it is simply assumed by us. Secondly, the central role of human subjectivity in constituting reality (shown by ‚deconstruction‘ of cosmological theories) and the historical and intersubjective dimension of this process of constitution (teleological activity of ‚historical consciousness‘). Nesteruk emphasizes the social (intersubjective) nature of the life-world – he sees it as the world

²⁷⁹ „Whereas phenomenology clarifies the meaning of science by referring it to the context of historical consciousness as it functions in the world, that is, to the living, embodied subjectivity with its pre-scientific experience of immediate indwelling in the world (the intensity of the immediate instance of hypostatic existence), theology can proceed even further by articulating the structures of the life-world by focusing on the destiny of man in his relationship with God, and seen as that disclosure of the human ability of transcendence which is being given in the very phenomenon of humanity in a characteristic way of presence in absence which implies the presence of that non-natural attitude to the contemplation of being which is called faith.“; *Ibid.*, p. 48.

of persons, the ‚creators‘ of science, art and all the cultural wealth we encounter in the world.

The key features of the life-world – *historicity* and *intersubjectivity* – are the same for science and theology. Thus, it is possible to expound them in the context of the life of the church (its tradition including theology). *Theology aims to explicate the human situation in the world in relation to its ‚other-worldly‘ ground (‚otherness‘ of God as the ‚source‘ of life) as the irreducible experience of existence, or simply existential faith.* The human situation in the world is affirmed by communion of human beings with the ‚otherness‘ of God in the life of the church. Nesteruk sees theology as the articulation of this experience of communion and participation as well as perception of the world ‚through‘ the eschatological presence of God.

Referring to Husserl’s conclusion that *thought* and *being* are fundamentally *inseparable*, Nesteruk shows that reality has sense only as a ‚dialogue‘ of human consciousness and the world. This fact leads him eventually to infer that the ‚otherness‘ of God is implied by the dialogical nature of reality itself, *being as communion*.²⁸⁰ Nesteruk points out that there are different ontologies of science, phenomenology and theology (different understanding of being in the world).²⁸¹ Phenomenological

²⁸⁰ „In a theological context one can refer to the life-world as that pre-given and difficult-to-articulate ground of all facticity, including that one of human subjectivity, whose existence as intentional consciousness assumes some noematic presence.“, *Ibid.*, p. 86.

²⁸¹ The difference could be expressed as: „the personal, irreducible hypostatic character of particular life-world in theology vs. the impersonal ‚field‘ of transcendental subjectivity (phenomenology and science)“, *Ibid.*, p. 183.

attitude of theology reveals the ground of all discursive thinking with its subsequent articulations of the world. A phenomenologically demonstrated link between thought and its ‚being‘ serves Nesteruk for developing his concept of dual intentionality, which will be discussed in the following passage. The interpretation of the life-world as the medium of communion with God plays the key role in his research and his attempt to mediate between scientific and theological articulations of the human condition in the world; *our decision to thematize the life-world constitutes the ‚telos of explication‘ for science and theology.*

For both, science and theology, the issue of the the live-world is intimately related to the quest for their ultimate origin (ground of sense) and it is exactly here where we can see a certain convergence (or at least a meeting point) of phenomenology and theology. The problem of human embodiment can be explicated theologically, that is, in the light of theological teaching about *incarnation of the Logos of God in Jesus Christ* and the hidden role of the Spirit of God in this ‚process‘ (and ‚reflected‘ in the context of ‚spiritual reality‘ of the Church as the ‚continuation‘ of this ‚event‘).²⁸² Theology itself, according to Nesteruk, is based on the Incarnation, thus the ‚convergence‘ of phenomenological and theological ‚reasoning‘ becomes understandable. The aim to thematize the life-world

²⁸² Ibid., s. 154.

provides the starting point for the subsequent search for the relationship between science and theology.²⁸³

4.3. Husserl's Teleology and Implicit Theology

The core of Nesteruk's argumentation indicates, that thematizing (and articulating) of the life-world eventuates in disclosure of the *telos* of all sciences. Nesteruk aims to employ the concept of Husserl's teleology and argues for its significance in the theological interaction with science.

Although Husserl had not striven for any systematic phenomenological treatment of theological concepts, the 'problem of God' appears at times scattered in Husserl's writings (especially in his unpublished manuscripts).²⁸⁴ His views on God could be traced when he develops his concept of teleology²⁸⁵.

Besides the systematic development of the *telos of European humanity* in Husserl's 'Crisis' Nesteruk mentions § 58 of

²⁸³ Nesteruk provides a condensed description of the framework of his approach to the science-theology dialogue; *Ibid.*, p.205ff.

²⁸⁴ Nesteruk follows S. Strasser who claims that Husserl was confronted with the 'mystery' of God and resorted to posing this problem quite consistently in the context of a *universal teleology* (and thus differently than is the case with the traditional theological doctrine treating God as the final 'cause' of the world); Strasser S., *History, Teleology and God in Husserl*, p. 318.

²⁸⁵ Husserl's view can be summarized as follows: „A teleological view of being is one that grasps reality in its organic totality‘.,The teleology of totality in which theological or half-theological forms become the most popular form of the ultimate picture of the world. Husserl's concept of totality as a totality already disclosed in its whole system of particular forms would be classified into this form of teleology.' ‚God is the immanent principle of perfection of the entire monadic universe, animating monadic being ‚from within‘“. Based on: Strasser S., *History, Teleology and God in Husserl*, p. 320; Dupré, *Husserl's Thought on Faith and God*, p. 213.

Husserl's early work, *Ideas I.* where a 'marvelous teleology' is mentioned: Husserl is fascinated by his observation, that is, the fact that the various processes in nature lead to a rationally constituted world. Those empirical facts of our study of the world call for a final explanation. Husserl talks about the 'fact' of an immanent teleology which cannot be explained empirically. The problem of teleology also appears in different contexts, especially when Husserl deals with the practical life of humanity and the 'moral order' of the world. Teleology becomes of major importance in Husserl's *Crisis*, where he attempts to recover the telos of humanity which was lost in the historical development of philosophy (this hidden telos could be reestablished by addressing the life-world). Husserl is convinced of the fact that the roots of the crisis are due to a 'stray rationalism' (the naturalistic/objectivistic tendencies) of modern times. Thus the task for philosophy is to explicate this teleology in its historical development (with a special heed to modern philosophy) which brings about the new understanding of ourselves as the bearers of this teleology and potentially (by our volitional efforts) also its 'effectors'.

'Teleology' is understood by Husserl as a philosophical form of existence, as giving to oneself and the whole world a rule derived from the pure reason (from philosophy) which leads to the universal knowledge of the world and of the hidden reason (and teleology) within the world. At this point Husserl makes

a strong case for rationality as the ‚morality of thought‘.²⁸⁶ Thus, philosophy shows itself as the historical movement of ‚revelation of the universal reason‘ inborn to humanity. This ‚entelechy‘ gives meaning (sense) to history which is seen now as a development towards the ‚ideal being‘ (as the eternal pole). This ‚intentional infinity‘ constitutes a new humanity, a new attitude to the world (to reality). Man lives in finitude but strives towards infinity. Husserl’s phenomenology understands reason as the development (movement) towards the ideal pole (truth). The ‚true being‘ is always the ideal goal, the task of reason. The ‚true being‘ can be conceived only in relation to this telos.

Husserl stresses the motivation and aim of his *Crisis* which is the search for the ‚true existence‘, the ‚personal calling‘ of a philosopher (which is also connected to responsibility for all humankind). As we have seen, this ‚being in truth‘ and ‚striving for truth‘ is only possible in relation to the telos of humanity which is – according to Husserl – achievable by philosophy. Husserl’s *Crisis* is conceived as another introduction to transcendental phenomenology (besides ‚Ideas I.‘ and ‚Cartesian Meditations‘), this time complemented by the historical dimension. Husserl wants to look beyond the ‚outward crust of historical facts‘ of the history of philosophy and reveal its intrinsic meaning (sense), the hidden teleology of philosophy.

²⁸⁶ Here we can see the *ethical dimension of his philosophy*, the infinite tasks of humanity as man’s *freedom* and, at the same time, his *responsibility*. This could eventually lead to the final principle of this universal knowledge – God. Husserl E., *The Crisis of European Sciences*, § 3, p. 7 (paraphrased, RL).

Husserl's phenomenology understands itself as the historical return to this lost (or hidden) telos. Phenomenology understands reason dynamically as a ‚movement towards truth‘ which implies the activity of a hidden teleology of reason. Here again we can refer to the problem of God which (according to a significant metaphysical tradition) includes in itself the problem of ‚absolute‘ reason as the teleological source of all reason in the world, as the ‚sense of the world‘. Husserl's historical ‚speculation‘ about the telos of humanity has (philosophico-) theological implications.²⁸⁷

The universal teleology (or teleology of reason) leading all individual subjects to the constitution of the one common, objective world, implies in turn the unity of telos in all ‚personal consciousness‘. Here we are approaching the crucial point of Nesteruk's argumentation: he sees a tension between the original aim of Husserl, that is, to pursue phenomenology as the study of the pure consciousness understood as the ‚self-contained complex being‘²⁸⁸ and his decision (in the last phase of his philosophical career) to extend his phenomenology by developing it in the ‚historical dimension‘. Nesteruk argues that

²⁸⁷ „The crucial question here is whether this supratemporal and trans-historic telos (being de facto a metaphysical notion, a kind of logos that sustains and drives the universe) is immanent to the universe or, represents a transcendent and exterior pole in relation to it (...) If, according to Husserl, the telos is identified with the idea of God, this same question can be posed as to whether a philosophical theology, implied by all considerations above, is pantheistic or theistic. For the purposes of this research, however, the most important question is whether the teleology of reason has a panentheistic character, that is, it is acting upon the world, but its disclosure cannot be effected only on the grounds of its traces in human rationality in the world.“; Nesteruk A., *The Universe as Communion*, p. 77.

²⁸⁸ *Crisis*, § 38 and *Ideas I.*, § 49.

what is missing (in the resolve of phenomenology to explain the ,foundations‘ of science and its ,existential‘ relevance in order to become the ,foundational‘, ,universal science‘ itself) is the issue of the ,ground‘ (or ,source‘) of consciousness itself, its contingent facticity. The ,ambiguity‘ of Husserl’s understanding of history (explicated in the light of his telos of European humanity) is interpreted by Nesteruk as an open door to reformulate the whole of phenomenology in the light of theology.²⁸⁹

Science and theology can be conceived of as the specific ,modes of experience‘ of the world. The tradition of science (with its roots in philosophy) and the tradition in theology can be seen as two different expressions of the ,infinite tasks of humanity‘ as being ,unfolded‘ in history. In this sense humanity is united on the level of teleology, the common tasks of humanity (and not only on the level of its natural consubstantiality, as is asserted by the anthropic reasoning mentioned earlier) as the incarnate transcendental subjectivity (which should according to Nesteruk become the ,core‘, the central issue of the dialogue between theology and the sciences). The following section will shed more light on Nesteruk’s important question concerning the nature of God’s presence and activity in the world as well as the nature of theology itself, as Nesteruk sees it.

²⁸⁹ Nesteruk appeals to the Greek Patristics and finds this ground in existential faith: „For Clement of Alexandria this ground was in faith, as an existential attitude, as participation and irreducible experience of existence, which, then, gives rise to knowledge and rationalism.“; Nesteruk A., *The Universe as Communion*, p. 81-82.

4.4. Nesteruk's Phenomenological Understanding of Theology

Theology of the church is understood by Nesteruk as the *„breaking of the telos of the human spirit in history“*.²⁹⁰ The Spirit of God transfers to history some teleological (or eschatological) intentionality: consciousness is driven by the Holy Spirit in its open-ended unfolding through history (reason is revealed to itself as progressing towards truth), or in Nesteruk's words is urged by the *„will of an invisible origin“*. This is in clear contrast to the modern autonomy of reason in which the ideal of truth was lost. Nesteruk calls for a new attitude and tries to regain this truth by appealing to some pre-modern elements. He talks about *„incarnation of premodernity as allegiance to truth which is the telos of humanity“*.²⁹¹ Nesteruk wants to provide a clear theological explication of the existential faith, which is, according to him, the ground of consciousness and thus (also) of all of its subsequent articulations of its *„embodiment“* in the world.²⁹² This will in turn have implications for the dialogue of theology with natural sciences: Nesteruk wants to bring back the eschatological dimension to the core of the scientific and

²⁹⁰ Ibid., p. 7.

²⁹¹ Ibid., p. 8.

²⁹² Ibid, p. 137-140; „To believe, in the sense of existential faith, means effectively to experience being and participate in it (...) Participation means here some non-objective relation to being in a sense of co-presence with it (...) Such a presence is not subject to empirical or intellectual objectification, so that, from the point of view of the natural attitude, participation means experience of presence in absence (...) To acquire faith through a reflection upon existential givenness, is implanted in man by God (...) Faith is participation in the sense that to think God means to participate in it.“

philosophical approach to the world. In the light of it, *nature (the world)* and human subjectivity receives its meaning, purpose and end in Christ.

Let us look more carefully at particular steps of Nesteruk's argumentation. With Husserl's understanding of teleology (as expounded in *Crisis*) in mind it is important here to examine more closely § 58 of *Ideas I.*, the short text which serves as an important link for Nesteruk's argumentation, leading eventually to the extension of phenomenology towards theology. In § 58 Husserl was confronted by the transcendence of God in the course of his exposition of all sorts of phenomenological reductions whose purpose was to establish the needed 'research field' of pure consciousness. Husserl contends that this 'transcendence of God' is given in a mediated way standing as an other-worldly pole (vis-a-vis the transcendence of the world as well as the 'absoluteness' of human consciousness).

The crucial observation is that this 'other' transcendence was expounded by Husserl in connection with teleology ('marvelous teleologies' in the world) and not through abstractions from the world (as chain of causations) culminating in an idea of transcendent God. The fact of the observed immanent teleology of constitutive consciousness calls for explanation and the question for the 'ground' of this teleological activity of consciousness is at hand. Acknowledging the legitimacy of this question Husserl qualifies the transcendence of God as an 'absolute' in a *totally different sense* than the 'absolute' of the

consciousness and as transcendence in a *totally different sense* than the transcendence of the world.²⁹³ The next Husserl's step is to reduce thus defined transcendence of God by the method of phenomenological reduction, hence eliminating theology²⁹⁴ from his 'phenomenological project'.

It is exactly here where Nesteruk sees an opportunity to develop a phenomenological concept of theology and develop his concept of *dual intentionality*²⁹⁵ (i.e., the 'intentionality' or 'teleology of faith'). As an Orthodox theologian Nesteruk wants to make clear the difference between God of philosophers on the one hand and the living God of faith on the other. Between the

²⁹³ Husserl, *Ideas I.*, p. 134.

²⁹⁴ This conclusion is fully justified only if we understand Husserl's reduction simply as full elimination. But it is necessary to mention that the problem of phenomenological reductions is open for another interpretations – e.g. that the reductions serve as temporary 'removal' of the concrete problem out of the current field of study (which does not exclude the possibility that the problem can be 'saved' for later analysis). However, there is no explicit treatment (not to say systematic study) of theological issues made by Husserl in his published works. On the other hand, there are some scholars who want to prove that the 'problem of God' was important for Husserl (they establish their claims basically on the unpublished Husserl's manuscripts and private letters to his closest co-workers); among them e.g.: Mall R.A., *The God of Phenomenology*; Dupré L., *Husserl's thought on Faith and God*; Strasser S., *History, Teleology and God in Husserl*.

²⁹⁵ *Intentionality* is the essential concept of phenomenology and the designation of its central problem. In simple language, *intentionality* is the power of mind to 'be about, to represent, or to stand for, things, properties and states of affairs'. Thus, intentionality as the basic descriptive character of consciousness is the specific contribution of Edmund Husserl to the classical problem of modern philosophy (i.e., how to relate the 'idea' in our mind to the 'object' which is presupposed to be 'outside'). Phenomenology is the study of 'phenomenality', the study of 'experience' of 'what is given', i.e. of various *intentional* 'facts' (the 'givens'). In his endeavor to find the convergence of phenomenology and theology Nesteruk appeals, besides Husserl's phenomenology, to the newer developments in phenomenology (especially in France), which significantly modify the classical model. For more details on the newer developments in phenomenology see: Novotný K., *The Limits of Classical Phenomenology*; Leask, Cassidy; *Givenness and God. Questions of Jean-Luc Marion*; McCurry, Pryor; *Phenomenology and the Theological Turn*.

autonomous reason and the pre-modern understanding of reason as an organ of participation and communion. He also differentiates between two kinds of objectivity – a ‚natural attitude‘ of modern science and philosophy in which the ‚object‘ is posed as transcendent to the field of consciousness, and ‚phenomenological attitude‘ of theology which is open to the infinite self-disclosure of its object²⁹⁶, that is, another ‚objectivity‘ capable of participation (direct apprehension) of the divine.

The main problem faced by any attempt of the phenomenological appropriation of theology is how to retain in the immanence of consciousness the transcendence (the ‚otherness‘) of God. Nesteruk solves this problem by his specific interpretation of Husserl’s methodological decision to reduce thus affirmed transcendence of God by the method of phenomenological reduction.²⁹⁷

Relational, dialogical, charismatic nature of theology points out to the fact that God is present to believers through communion (the ‚relationship‘) although he is clearly absent for the discursive reason. Nesteruk refers to the basic differentiation of Patristic theology between the two distinct cognitive faculties: *dianoia* (discursive reason) and *nous* (intellect, spiritual insight).

²⁹⁶ Nesteruk A., *The Universe as Communion*, p. 117.

²⁹⁷ Nesteruk mentions the following parallel between phenomenology and the apophatic Orthodox theology: „In fact, there is nothing special and new in the transcendental reduction of the transcendent God performed by classical phenomenology, because what is effectively happening here is that the idea of God is deprived of any objectification outside the generating consciousness, that is, its transcendence cannot acquire an ontological quality, remaining transcendent but only within the immanence of consciousness.“; *Ibid.*, p. 119.

This distinction implies the existence of two different intentionalities of one human subject and constitutes the contraposition of philosophy (science) and theology. The emphasis is laid on the spiritual intellect ‚nous‘ (as an ‚organ‘ of faith) which is ‚responsible‘ for the initiation of ‚another intentionality‘ which is directed to question the contingent facticity of the ‚human knower‘ itself.²⁹⁸ By relating modern phenomenology to apophatic theology of the Fathers of the church Nesteruk can use Husserl’s method of phenomenological reduction in order to affirm the living God of faith (by legitimate bracketing of all possible philosophical ideas of transcendent God as conceptual ‚idols‘ not able to exhaust the ‚reality‘ of God). God is confirmed and ‚revealed‘ as ‚transcendence in immanence‘.²⁹⁹

Husserl’s assertion about the ‚other absolute‘ is then, according to Nesteruk, the ‚outward‘ and ‚indirect‘ confirmation ‚from within‘ of consciousness of the presence of *nous* (being ‚detected‘ in human consciousness which was characterized by Husserl as a ‚self-contained complex being‘) as an ‚intrinsic grace‘ (of the Divine image in man).³⁰⁰ Nesteruk claims, that

²⁹⁸ He refers to Maximus the Confessor and his exposition of faith as the basis of knowledge: „Faith is true knowledge, the principles of which are beyond rational demonstration; for faith makes real for us things beyond intellect [mind, A.N.] and reason (cf. Heb. 11.1)“. Ibid., p. 125; See more on this topic in: St Maximus the Confessor, ‘Two hundred texts on theology’, I.9, Philokalia, vol. 2, p. 116.

²⁹⁹ Ibid., p. 142.

³⁰⁰ Ibid., p. 88; In this respect Nesteruk characterizes his ‚phenomenological‘ understanding of ‚panenteistic ontology‘ (as it was ‚outwardly‘ confirmed in Husserl’s § 58 of Ideas I. in the course of his deliberations about ‚teleology‘ and the ‚ground‘ of consciousness): „The facticity of all subjectivity is in God, but the intrinsic limitedness of this facticity, felt as having its

although Husserl worked with a closed, 'one-dimensional' concept of consciousness, it does not necessarily mean that presence of any 'other' intentionality cannot be thought within this consciousness. The 'free decision' of the human knower to proceed with the 'methodological doubt' of phenomenological reduction – which 'doubts' the existence of 'anything' outside human subjectivity in order to acquire 'truth' (i.e., the true knowledge and the 'absolute' certainty of it) – is not the denial of existence of God. On the contrary, it is the 'indirect' confirmation of God's activity in human life through *freedom* which is the basic characteristic trait of human existence given (implanted) by God to (in) man.³⁰¹ Thus, eventually, the whole method of phenomenological reduction – aiming to 'understand' the possibility of knowledge – serves, according to Nesteruk, as the preparation of faith.³⁰²

foundation in its otherness, points towards what is beyond it, that is, to God, which exceeds indefinitely its immanence with subjectivity."

³⁰¹ Moltmann, *God in Creation*, p. xiv; In the context of our discussion pertaining the 'inner grace' of the presence of the Holy Spirit of God, (apprehended by the spiritual intellect *nous*) we can refer to Jürgen Moltmann and his Trinitarian theology of creation: „By the title, 'God in Creation', I mean God the Holy Spirit. God is 'the lover of life' and his Spirit is *in* all created beings (...) This doctrine of creation, that is to say, takes as its starting point the indwelling divine Spirit of creation (...) The Creator, through his Spirit, *dwells in* his creation as a whole and in every particular being, by virtue of his Spirit holding them together and keeping them in life." [emphasis, JM].

³⁰² Since one of the main goals of Nesteruk's research was to demonstrate the legitimacy of faith in the whole human enterprise of acquisition of knowledge, he uses the tools of contemporary (existential) phenomenological philosophy and offers the following 'apology of faith': „The *nous* thus provides a foundation and a pointer for the reason to infer to the existence of God from the created things; that is, to experience the foundation of all things as correlates of the *dianoia*-like intentionality in the otherness of the *dianoia* itself, understood as the 'ground' of its contingent facticity. This inference constitutes faith in the existence of God as the giver of knowledge about things granted to us in existential events (this faith is

By claiming the primacy of faith he can eventually speak about the ‚dual intentionality‘ of faith understood in an existential manner: even the *natural attitude* of science manifests the belief in the existence of the world; the ‚belief‘ in the ‚content of our mind‘ as well as the possibility to obtain a meaningful knowledge is the condition for all subsequent search for understanding. Seen from the perspective of the *phenomenological attitude* of theology, on the other hand, the ‚intentionality‘ of faith, explicated theologically (as stemming from the mystical life of the church community), is *the invocation of the Spirit of God* in the liturgy of the worshipping church. Telos of theology is, according to Nesteruk, the ongoing invocation of the Spirit understood as the ‚ground‘ of existence, the ‚source‘ of ‚all that is‘. Ultimately, God is the ‚final source‘ and the ‚presupposition‘ of all knowledge. In this sense, the whole strife of phenomenology to explicate the possibility of knowledge and hence the sense of life in the world can find the fuller and final answer in cooperation with theology.

The parallel is obvious: the life-world (as the world of persons) is the ‚otherness‘ of scientific theories able to provide the needed telos, which eventually allows sciences to ‚comprehend‘ themselves. Theology, on the other hand, asks further for the otherness of life (of the human person) in its search for

more than any logical proof and which is not an abstract construct of metaphysics). This faith is not the exaltation of the logical mind to its limiting capacity but the gift of grace as the initiation of another intentionality in human subjectivity that is articulated through the nous (...) Faith makes it possible to initiate that intentionality which is directed towards realities that are present in their absence.“; Nesteruk, *The Universe as Communion*, p. 125.

,understanding' of the mystery of life, the uniqueness of human existence in the world.

Thus, expanding on Husserl's teleologies, Nesteruk wants to assign his ,teleology of faith' (i.e., the ,non-objective' intention discussed above) as the final ,vanishing-point' of all teleologies which in turn allows him to develop his phenomenological understanding of theology. Nesteruk's observation that phenomenology struggles with the idea of God and the presence of the ,intrinsic grace' in the inquiring human consciousness propels him to hope that the whole phenomenological project can be ,transfigured' and ,employed' in theology and its dialogue with science. Nesteruk's assertions above are based (besides Husserl's phenomenology) on some important works of the twentieth-century existential philosophers (and phenomenologists), namely, Gabriel Marcel, Maurice Merleau-Ponty and, above all, *Jean-Luc Marion*. In his progress towards ,phenomenological theology' it was necessary for Nesteruk to follow the key French phenomenologists, the ,representatives' of ,theological turn' in phenomenology, who modified Husserl's classical approach and ,extended' it towards theological reasoning.

4.5. Jean-Luc Marion and the Theological Turn in Phenomenology

Nesteruk's concept of the ,dual intentionality', expounded above, is to a large extent inspired by Marion's phenomenology of inapparent, i.e., it is similar in many respects to his concept of

the *saturated phenomenon*. This basic concept of Marion's phenomenology plays the fundamental role not only in Nesteruk's phenomenological understanding of theology but also in his phenomenological analysis of contemporary scientific cosmology. In his recent extensive study on *'The Sense of the Universe'* Nesteruk employs Marion's saturated phenomenon in order to provide a philosophical explication of theological commitment in modern cosmology'.

The contributions of the French phenomenologists (besides Marion it is especially Merleau-Ponty and his 'phenomenology of embodiment') also provide the key conceptual tools allowing Nesteruk to explore the value of phenomenological analysis and its application for theology in its dialogue with science. The 'methodology' as well as the specific contribution of Nesteruk's research to the dialogue can be summarized as an interplay of two different 'attitudes to reality'.

Marion's phenomenology of the inapparent allows Nesteruk to establish his intentionality of faith, that is, the 'Spirit-like intentionality' (as the philosophical appropriation of the theological teaching about the role of God's Spirit in Incarnation) which itself is induced by the activity of the Holy Spirit working non-transparently in the world. If evaluated along the lines of the classical Husserlian phenomenology, it would be an 'empty', 'unfulfilled' or simply a 'hidden' intentionality.

The theological turn in French phenomenology, on the other hand, goes far beyond the narrow confines of the classical phenomenology and its method which means that phenomenology becomes widely open for all kinds of 'non-

worldly' phenomena and also acquires an ,existential' character, being able to interpret various ,modes' and ,eventualities' of human existence. The most fundamental advancement for the contemporary theological reasoning is Marion's understanding of God as an *event*. This ,interpretation' allows philosophy to expand on theological issues which themselves enrich philosophy with some important elements of the ,irreducible' experience.

Let us state the elementary problem of theology in its relation to phenomenology again: how is it possible to formulate any statements about the transcendent God (who remains to the large degree ,hidden' and ,inaccessible')? How can we speak in phenomenological language about God's revelation? How can God's transcendence be ,retained' in the immanence of the inquiring human consciousness?

In terms of Husserlian phenomenology it seems to be ,logically' impossible. This was recognized as problematic by the key figures of the ,theological turn' who tried to cope with this ,deficiency'. Here we can stress the originality of Marion's approach to phenomenology: he understands this ,impossibility' (of the phenomenological apprehension of God) in the context of ,the coming of the event', the *event* of God, which is not based on the ,will' of the inquiring subject, its cognitive potentialities of constitution.

Thus, Marion stresses the unpredictability of the event. His ,negative phenomenology' makes it possible to justify or make legitimate the ,realities' which are ,overflowing' with excess of experience beyond its limits. This also means that the way is

open for the personal ‚participation in transcendence‘, not only its conceptual reflection. All what was mentioned above sheds light on Marion’s concept of the ‚saturated phenomenon‘: as ‚saturated‘ he understands any ‚phenomenon‘ which does not allow for the ‚conceptual grasp‘ because of its ‚excess‘ of intuition, but which, at the same time, determines the features and ‚horizons‘ of the subsequent phenomena. In his groundbreaking study *Being Given* Marion speaks about the ‚unconditionality of a gift‘ and stresses the ‚radical‘ phenomenological ‚givenness‘ of ‚saturated phenomenon‘ and provides its concise definition.³⁰³

The ‚givenness‘ (*donation* in Marion’s terminology) becomes the ‚ground‘ and the ‚last principle‘ of any phenomenon. The phenomenon becomes that ‚other‘ which gives itself ‚from‘ itself, from the excess of intuition pertaining to the saturated phenomena. Marion performs the inversion of the classical phenomenological perspective which allows him to think the correlation from the side of the (givenness of) phenomenon, where consciousness becomes ‚intentionally immanent‘ to that what ‚appears‘. *Donation* comes prior to any other ‚instance‘ including the human subject. Marion’s saturated phenomenon

³⁰³ „The saturated phenomenon exceeds these (i.e., Kant’s, RL) categories (as well as principles), since in it intuition passes beyond the concept (...) The saturated phenomenon will be described as invisible according to quantity, unbearable according to quality, absolute according to relation, irregardable according to modality. The three first characteristics put into question the ordinary sense of horizon (§ 21); the last, the transcendental sense of the I (§ 22).“Marion, *Being Given*, p. 199.

also points to the possibility of emergence of something radically new, as the *coming of an event*.

This eventually allows Marion to expand on the ‚Revelation‘ of God and treat it as the ‚ultimate horizon‘ as well as the primary ‚constitutive agent‘ determining the ‚immanent teleological activity‘ of the inquiring human subject. Here it is even possible to refer to Husserl, in whose phenomenology we can already detect some features which eventually led to the opening of phenomenology for theological issues – especially his conclusion about teleological nature of human subject (and the implicit faith in God).³⁰⁴

Nesteruk employs this concept in his research aiming to explicate the existential dimension of faith as the central aspect of the dialogue of theology and science. The saturated phenomenon provides the needed conceptual framework which Nesteruk employs to advocate for the changed attitude to this dialogue speaking about ‚dual intentionality‘. To explicate it further, we need to understand that there is, on the one hand, the intentionality (in the original Husserlian sense) which is oriented towards the various object-like poles (i.e. to something empirically/conceptually ‚present‘) and at the same time – through that which is ‚present‘ – to something ‚other‘, to its ‚other‘ side, which is absent (inapparent, directed to the realities

³⁰⁴ Hahn, *The Concept of Personhood in the Phenomenology of Edmund Husserl*, s. 197-198; Hahn quotes from Husserl’s manuscript a V 21: *Ethisches Leben. Theologie-Wissenschaft*.

present in absence, which can be called as intentionality only conditionally).

In the case of science, the natural attitude ‚dissects‘ from its immediate sphere of operation (i.e., from the life-world) only that which is empirically ‚present‘ to the inquiring consciousness, that which could be objectified (empirically or conceptually). But what science tends to forget (or ignore) is the simple fact that the presupposition of any single act of constitution (e.g. of the empirical objects) is the existential faith (i.e. the basic assumption of the world’s existence) as well as the awareness of the underlying ‚inarticulated ground‘ (or the pre-scientific understanding). Nesteruk’s existential reinterpretation of Husserl’s phenomenology states that the existential faith is this indispensable ‚link‘ which guarantees the ‚reality‘ of all of our knowledge. Our quest for the ‚ground‘ of knowledge itself is the legitimate ‚pointer‘ to God who is the ‚inconceivable‘ source of human consciousness and in that sense the ‚essential‘ dimension of philosophy, theology and science.³⁰⁵

Nesteruk also develops further the analogy with the realm of theology – its questioning about the ‚otherness‘ of human person, its ‚hidden ground‘ as that *invisible origin*, the source of *communion* which reveals the true God of theology: Our intentions to look for the foundation of life (person) cannot be

³⁰⁵ Nesteruk clarifies his understanding of the dual intentionality of faith with reference to the concept of ‚otherness‘ and the phenomenological construct of ‚presence in absence‘. The clear and thorough explication of what is meant by this phenomenological construct and the use of this concept in the dialogue of theology and science can be found in: Nesteruk, *The Universe Transcended God’s ‚Presence in Absence‘ in Science and Theology*.

found in objective terms. This is a hidden and unfulfilled intentionality, induced by the Holy Spirit as the giver of life and acting non-transparently in the world. Human consciousness struggles with that which cannot be presented in the phenomenality of objects and the 'intentionality' is itself constituted to the extent that the human knower cannot constitute the phenomenon (e.g., the universe as a whole or the Divine). The intentionality of faith (the Spirit-like intentionality in Nesteruk's terminology) is the directedness of the 'interior insight' at the fact of the contingent facticity of existence itself. It is the fundamental 'experience' of the uniqueness (singularity) of existence as opposed to the hypothetical non-existence. Life is then perceived as the unique gift of God the Creator, as we have already mentioned above.

Referring to Husserl's § 58 of his *Ideas I*, Nesteruk advocates for the 'phenomenological attitude' of existential theology in which the possibility of the 'self-transcendence' of the human subject is revealed.³⁰⁶ The structures of human intentional subjectivity point towards its 'ultimate source' in God. Mindful of the basic assertion of Husserl - his dynamic understanding of reason as the 'movement towards truth' - Nesteruk interprets the immanent teleology of human subject in the context of the

³⁰⁶ In the context of our discussion with Nesteruk (about the logos-like and spirit-like intentionality) we can refer to Moltmann's Trinitarian theology of creation which aims to link God's revelation and human experience as well Moltmann's panentheism and his deliberations about the incarnation of the Logos of God in Jesus Christ (and the 'hidden' role of the Holy Spirit in Incarnation), and the relationship of the Word of God and His Spirit; Moltmann, *The Spirit of Life*, p. 3.

Orthodox theology. ‚Securing‘ of the truth of theology is not the task of pure reason, but the stress should be laid on the experiential (existential) character of the Orthodox theology, that is, its ‚embeddedness‘ in the context of the worshipping church, in the participation in its liturgical life). The truth of theology is not primarily the conceptual construct, but the ‚expression of life‘, the dialogical relationship in progress towards its telos (i.e., the union with God), the participation which can be understood as the ‚non-objective relation to being‘, the ‚mystical communion‘.

The ‚intentionality‘ or *teleology of faith* (the eschatological or eucharistic ‚intentionality‘, the *teleology* of the Spirit) eventually leads to the existential change of the human subject itself (*metanoia*), to the change of his ‚attitude to reality‘. Human reason is ‚revealed‘ in the light of faith, that is, only through its existential union (‚indivisible‘ communion) with God. If the human consciousness is conceived of this way, then the key Nesteruk’s assertion about the important role of Husserl’s reduction of God from phenomenological project (§ 58 of *Ideas I*) in his ‚theological phenomenology‘ (or phenomenological understanding of theology) is understandable: it would eventually lead to the reduction and elimination of the consciousness itself.

Moreover, as we have seen, in Husserl’s phenomenological reduction, by its elimination of all conceptual idols of God (the philosophical abstractions concealing the life-world, the living and ‚mystical‘ participation in the life of the church, understood as the communion with God) ‚confirm‘ the irreducible ‚presence‘

of God (as the ‚pillar‘ or the ‚source‘ of human consciousness and all its subsequent articulations) in its ‚absence‘, i.e. God’s transcendence as the ‚radical‘ immanence to the life of human consciousness. From this perspective Nesteruk develops his phenomenologically explicated theology, whereas *panentheism* is the crucial framework within which his project of mediation between theology and science is ‚understood‘.

At this point, before we move towards phenomenological appropriation of science, it is helpful to provide a tentative overview of Nesteruk’s approach to the dialogue: The starting point of mediation between theology and science is (theological) anthropology. He appeals to the doctrine of Incarnation in the light of which the Imago Dei (understood in a Trinitarian sense) was recapitulated. This implies the fundamental correlation of intentionalities within the one human subjectivity which ‚partake‘ in the formation of the existential orientation of the inquiring subject.

With the reference to the Logos of God (as the rational principle in the ‚background‘ of all phenomena) Nesteruk defines the ‚natural‘ intentionality (or ‚logos-like‘ intentionality) pertaining to the approach (attitude) of ‚objectifying‘ natural sciences. They are only concerned with ‚explication‘ of the rational structure of the universe but do not ask about the ‚cause‘ of these structures nor the ‚ground‘ (i.e., the possibility) of the ‚scientific knowledge‘ itself. Here comes the issue of faith understood in existential terms (and also theology as the expression of the rational reflection of this existential faith) as

the experience of the communion with God which is at the same time a reference to the mystery of Incarnation.

The doctrine of Incarnation ,implies‘ the ,hidden‘ presence of the Spirit of God in the background of the ,event‘ of Incarnation. This Spirit-like intentionality (present implicitly in our ,existential orientation‘ in the world) is ,present‘ as the underlying ,hidden‘ layer forming the ,ground‘ of all subsequent ,events‘. *Intentionality of faith is, according to Nesteruk, the simple intention to address the contingent facticity of all that exists.* Thus, human consciousness (intentionality) is either directed to object-like phenomena, or it struggles with that which cannot be presented in the phenomenality of objects at all (i.e., the saturated phenomena such as the Divine or the ,universe as a whole‘ as well as the big bang as its origin). In the latter case the intentionality is itself constituted to the extent that the inquiring subject cannot constitute the phenomenon. *Fundamentally, as we have seen, Nesteruk understands human existence as a gift, donation.* Thus, following Marion, Nesteruk wants to ,rethink theology‘ out of the logic of the gift. This entails ,the mystical path, where God enters human subjectivity not as correlate of imagination and symbolic consciousness, but through direct communion with His givenness, which represents a major difficulty for phenomenology in which the very transcendence is fundamentally problematic.³⁰⁷

³⁰⁷ Ibid., p. 84.

The extension of phenomenology towards theology was (and still is) criticized, but at the same time, it is also a source of a fruitful discussion of philosophers and theologians.³⁰⁸ Dominique Janicaud, who criticized Marion (and other French phenomenologists of the ‚theological turn‘) for smuggling into the classical phenomenological discourse a wide array of theological, biblical and even mystical terms, described accurately the main feature of the change in phenomenological enquiry - the ‚new phenomenologists‘ are not primarily interested in description of phenomena (as was the case of Husserl) but are mainly preoccupied with the search for an ‚essence of phenomenality‘. They criticize Husserl’s ‚monistic‘ model of phenomenality (as the ‚metaphysics of presence‘) which can be at large characterized by this ‚basic pattern‘: the ‚conception‘ (notion) on the one side and the ‚content‘ on the other. They also argue that on certain levels of phenomenological analysis it is necessary to employ another model of phenomenality which is capable to think the experience (intuition) and the phenomenon as a one whole (with the possibility of opening of the ‚future‘ horizon).³⁰⁹

Following some of the present-day Orthodox philosophers and theologians as well as the French phenomenologists (and their claim of the possibility to employ phenomenology to study theological concepts) Nesteruk poses the fundamental question of how the relationship of philosophy and theology should be

³⁰⁸ See more in: Janicaud, *Phenomenology and the ‚Theological Turn‘*, Bornemark, *Ruin; Phenomenology and Religion: New Frontiers*; Horton-Parker, *Tracking the Theological Turn*.

³⁰⁹ Janicaud, *Phenomenology and the ‚Theological Turn‘*, p. 18.

properly understood. In his search for the basic ‚guidelines‘ for his project of a neo-patristic synthesis he expresses the basic alternative in the words of John Zizioulas:

„Is a philosophical justification of patristic theology possible? Or does patristic theology in its essence constitutes the converse, that is, a theological justification of philosophy, a proclamation that philosophy and the world can acquire a true ontology only if they accept the presupposition of God as the only existent whose being is truly identified with the person and with freedom?“³¹⁰

He chooses the second alternative in his approach, although he is well aware ‚that theology cannot and must not ignore achievements of philosophy, because without mutual interchange of experience of thought, neither of them could properly accommodate in surrounding cultures.’³¹¹ He also claims that it is necessary to develop some universal language if we want to engage in the mediation between theology and science. He emphasizes that it is essentially a philosophical language capable, on the one hand, to reflect adequately the ‚scientific realities‘, but, on the other hand, to be aware of the special character of the Divine reality.³¹²

³¹⁰ Nesteruk, *The Universe as Communion*, p. 101 (See also: Zizioulas, *Being as Communion*, p. 46ff); *Ibid.*, p. 103.

³¹¹ *Ibid.*, p. 101.

³¹² Because of the Incarnation of the Logos of God in Jesus Christ (which is the expression of God’s self-giving Love, his kenosis) Nesteruk can clearly state his view of the relation between philosophy and theology: „Here love takes responsibility for that which is affirmed in philosophy and science because it Christologically reinstates the definition of philosophy, and hence the sciences, to their proper sense as ‚love of wisdom‘ and ‚love of truth‘ (...) Christian love confesses a hope that the time will come when the ‚great reason of love‘ will respect the

Phenomenology, which is able to demonstrate the legitimacy of faith as the possible starting point of any philosophizing, is the most appropriate ‚conceptual language‘, able to play the needed role of the mediator between the realm of theology (religion) and science.³¹³ Thus, as we have seen, the French phenomenology with its ‚theological turn‘ provides the conceptual tools for the development of the ‚future orientation‘ and ‚existential dimension‘ of the dialogue along the lines of a neo-patristic synthesis in theology. It also enlightened the meaning of Nesteruk’s rather ‚audacious‘ thesis that ‚*the phenomenological project is destined to become a theological project*‘. Nesteruk demonstrated that, because of the intrinsic character of phenomenology and its aim to search for the ‚hidden ground‘ of meaning, the ‚sense-forming level‘ of reality, his assertion can be (conditionally) accepted.

It is an important claim, since Husserl’s ambition was to proclaim phenomenology to be the ‚foundational‘ and ‚universal‘ science which – able to disclose the hidden ‚ground of sense‘ – should play the *teleological role* for the realm of science as such and for its partial sciences reminding them of their ‚intrinsic‘ limitedness. If theology could play a similar role, then Nesteruk’s argumentation (based on Husserl’s phenomenology) is another

objectivized world as the other, which is worthy of love, that is, it will see the world by the eyes of the Logos through whom and by whom all is.“; Nesteruk, *The Sense of the Universe*, p. 39-40.

³¹³ „Religious philosophy starts from the primacy of faith, which according to phenomenologists is a legitimate way to enter philosophy in general, but, as they argue, this is not the only way, and phenomenology complements and does not contradict the (...) approach [of theology RL].“; *Ibid.*, p. 100.

,encouragement' to see theology as the important source providing the ,final' explanation to all segments of our scientific (and even philosophical) knowledge.

In the following sections we will explicate further how Nesteruk understands and employs the newly found teleological convergence of theology and phenomenology. Theologically appropriated phenomenology can be applied to examine the realm of science and its theories. This eventually allows us to disclose the sacred elements in the core of scientific experience itself as well as the sense (or ultimate meaning) of our scientific quest, the study of our universe.

4.6. Phenomenological Appropriation of Science and the Mediation between Theology and Science

All that was mentioned above shows and clarifies the new attitude to the interaction of science and theology with its potential to answer the basic question about the ,truth' and ,sense' of the dialogue itself. The importance of the different ,historical traditions' of the human spirit (be it philosophy, science or theology) was emphasized. As was demonstrated in Husserl's *Crisis*, in phenomenological philosophy history is understood as the manifestation of the life of consciousness which means that ,nature' and the ,world' (the universe) are articulated from within the internal life of subjectivity (i.e., the ,personal' dimension of science), from within human history (this also ,provides' the transcendental meaning of history.)

The concept of (dual) intentionality allows the philosophising cosmologists to speak about and study the universe as a construct, or conversely, the emphasis could be laid on the activity of human consciousness focusing on the process of constitution itself, which in turn illuminates the internal life of human subject and its search for understanding. This fundamental correlation provides the key for the fuller understanding of the position of man in the universe, the sense of his existence.

Employing the conceptual tools of Marion's philosophy Nesteruk is able to study *the universe as the saturated phenomenon*. As we have seen in our previous discussion with George Ellis³¹⁴, the universe as a whole cannot be represented in the phenomenality of objects (in the 'normal' sense of the word), but on the contrary, the 'unknowability' of the universe has the direct influence on the constitution (or a 're-configuration' in a certain sense) of the inquiring subject itself. Thus, the study of the universe has an existential significance for humanity and, understood this way, it opens a new level for the interaction of theology and science.

At the same time, Nesteruk's specific approach allows us to see what is the consequence if the emphasis is unduly laid only on one of the possible 'approaches' to cosmological study - it inevitably leads to the imbalanced understanding and the fateful

³¹⁴ See the earlier section of our study, namely *The Scientific Status of Cosmology and its Relation to Theology*.

split between the natural and human sciences. In the case of science with its ‚natural attitude‘ the problem lies in its emphasis on the study of the ‚constituted‘ universe understood as the ‚external entity‘, fully independent on the insight of the inquiring consciousness of the scientist. This ‚naturalistic‘ tendency, according to Husserl and Nesteruk, brings about the loss of understanding of what is the sense of science (i.e. the loss of *personhood* in Nesteruk’s terminology) and its existential relevance for humanity. Here also lies the root of the historical tension of the natural sciences and theology. Nesteruk contends that the thematization and articulation of the life-world provides optimistic prospects for the interaction of science and theology.

This ‚optimistic‘ assertion allows us, at the same time, to stress the fundamental differences between scientific and theological ‚ontology‘ which is the necessary initial step in our effort to mediate between them.³¹⁵ Nesteruk admits that it is a demanding process especially in the case of science, which conceals the life-world (e.g. physical cosmology does not understand the life-world as its foundation) with its theories as the abstractions from it. The following section demonstrates how phenomenology (employed in Nesteruk’s research) helps to break the *scientific monism* and ‚release‘ the ‚world of science‘ to be immersed in the wider ‚theological reality‘.

³¹⁵ Ibid., p. 168; „Theology insists on the fundamentally irreducible hypostatic essence of any particular *life-world* but assumes a special sort of intersubjectivity, called catholicity (...), which establishes a common ground for their communication; science, while thematizing *life-worlds* removes all hypostatic specificity and reveals their unity on the level of consubstantiality of human subjects.“ [emphasis RL]

4.7. Paradox of Human Subjectivity in Philosophy, Theology and Science

It was argued before that the issue of incarnate transcendental subjectivity constituted the core of Nesteruk's approach to the dialogue of science and theology. More specifically, he refers to Husserl's 'paradox of human subjectivity' and employs it in various contexts at the key points of his argumentation. Husserl's 'paradox' which expresses the 'transcendental approach' to the self understanding of *man's position in the universe* was summarized in those simple words: *being a subject for the world and at the same time being an object in the world.*³¹⁶

Nesteruk claims that this paradox encapsulates the essence of the tension between science and theology.³¹⁷ Consequently, his theological interpretation of the paradox constitutes the general framework for his model of mediation between science and theology in their mutual quest for truth. The paradox of human subjectivity could be understood as pointing towards the different positions ('attitudes' or 'intentionalities') human subjectivity can adopt with respect to *ontology of being*:

„The dualism in the human condition leads to the fundamental split of intentionalities that are at work in human subjectivity: one which is directed to the world and treats the human phenomenon as a thing

³¹⁶ Husserl, *Crisis*, § 53.

³¹⁷ „[I]t can reveal in itself some existential wisdom that is related to the main Christian stance on the Incarnation: If the paradox reflects the intrinsic feature of the human condition, then, to Chalcedonian definition, Christ himself, by being fully human, that is through His belonging to the created world, exhibited the presence of the above paradox.“; Nesteruk, *The Universe as Communion*, p. 208.

among other things, and another one which treats existential events (as event of communion) as primary basis for all other explanations of the world, as that centre of manifestation and disclosure through which the whole of being becomes palpable and intelligible.³¹⁸

The simple fact that humans are part of the universe, but at the same time they constitute the consciousness of the universe, is a ‚dual‘ position which Nesteruk accepts as a given, as the primary existential reality. Thus we are confronted with a need to mediate between these different intentionalities within one human subject and its experience of the world. Science and theology could be treated as different modes of this experience whereas the personal life of any individual human being (and its experience of reality) becomes the place of reconciliation between the split intentionalities at operation within. Aware of this paradoxical situation Nesteruk stresses the difficulty with the natural attitude of science claiming that its major problem lies in the fact that ‚it predicates human nature as being part of and determined by *nature* at large whereas this very *nature can be attained only from within its particular fragment, that is, human nature.*‘³¹⁹

This brings us to the basic observation of major importance for our research. Man is to become the interpreter of *nature* (i.e., of the universe) which means that any speculation about the universe must be supplemented by anthropology (and implicitly

³¹⁸ Nesteruk repeatedly questions the legitimacy of scientific monism and points out to some of its weaknesses; *ibid.*, p. 176.

³¹⁹ *ibid.*, p. 168.

also epistemology), where *nature* is understood – by employing the conceptual tools of existential phenomenology – as the extension of the human body, so that it is eventually possible to treat ‘*man and the universe as two parts of the one book being*.’³²⁰ Thus, this ‘existential’ understanding of our position in the universe points to the most important claim of our research that cosmology and theology (via theological anthropology and pneumatology) mutually illuminate one another and could be fully understood only by means of one another.

The ‘fullness of being’ can be understood and explicated further as our experience of God, or even more, as His ‘revelation’ granted to us through God’s Holy Spirit, the ‘Giver’ and ‘Affirmer’ of life, that is, the ‘Source’ of existence of man (person) in the world (nature). The Spirit of God, interpreted as the ‘divine energy of life’, which interpenetrates all that exists, is the Spirit of creation and the Spirit of the new creation of all things. In this context we can refer to Moltmann who argues that in our talk about God’s Spirit we should emphasize the role of human body as well as the physical nature, that is the ‘elements’ which are rather neglected in the church’s pneumatology.³²¹

³²⁰ Nesteruk, *The Sense of the Universe*, ch. 1, p. 87-117.

³²¹ „To experience the fellowship of the Spirit inevitably carries Christianity beyond itself into the greater fellowship of all God’s creatures. For *the community of creation*, in which all created things exist with one another, for one another and in one another, is also *the fellowship of the Holy Spirit*.“; Moltmann, *The Spirit of Life*, p. 10; Moltmann’s pneumatology also emphasized the term ‘spirit of life’, where the ‘spirit is love of life which delights in us’, disclosed in our experience of life, which could be further characterized as life in the presence of eternity. *Ibid.*, p. x

Panentheism should be mentioned here once again: Because of the presence of God in the world and the world in God the whole nature should be understood as ‚God’s palpable, materialized love‘ and ‚the reflection of his beauty‘.³²²

At this point we need to appeal to Nesteruk’s search for the ‚ground‘ of ‚constitutive‘ human subjectivity (i.e. the ‚otherness‘ of human person as was mentioned above) which is the hidden ‚basic ground‘ of all scientific constructs including those of physical cosmology. The ‚existential dichotomy‘ takes various forms as the expression of the fundamental paradoxical ‚position‘ of human subject (person) in the universe.³²³ Nesteruk’s theological interpretation of the paradox allows us to see it as the manifestation of the essence of humanity made in the *image of God*. This assertion explains why theological anthropology is the suitable foundation as well as the starting point of any viable approach to the dialogue of science and theology.

Nesteruk also refers to Torrance’s *Space, Time and Incarnation* which helps him to explicate the reciprocal relation between man and the universe employing the metaphor of a ‚container‘ and ‚contained‘ (as the illustration of humanity’s peculiar position in the universe). Nesteruk employs the key

³²² Ibid., p. 211.

³²³ Nesteruk, *The Universe as Communion*, p. 154-155; „The paradox of human subjectivity can thus be explicated as the tension between ontologies of being based either on substance or on hypostasis. For example, in modern physics and cosmology the grandeur of the world is understood through particles, fields, space-time, planets, galaxies, the whole universe, but, as we have pointed out above, there is no place for human subjectivity and personhood.“

Christian doctrine of Incarnation (especially its anthropological and pneumatological aspects) in his argumentation and claims that the paradox, which reflects the mystery of embodiment could be appropriated theologically as the manifestation of the Incarnation of the Logos in space: Although the Logos was contained in flesh, yet still remains the Logos, the eternal Word of God, ‚present in all space and time, ‘containing’ all space and time not by the power of some creaturely force, but *through the relation to the created world* (as its enhypostasization) which can be manifested in terms of *God’s will and wisdom*‘.

This assertion allows Nesteruk to employ the term ‘humankind-event’ aiming to stress the contingent facticity of humanity which ‚was brought into being, had its beginning and will have its end‘, which are not given by themselves but ‚determined by the logic of the invisible origin‘, God the Creator.

Such a theological thematization of the life-world as inherent in the Hypostasis of the Logos forms a sharp contrast to how life is thematized in the mathematical science and rationalistic philosophy as a sector of cosmic determinism and integral part of the equation, that is, the universe.“³²⁴

This understanding also sheds light on the meaning of human history. It prevents us from treating the presence of humanity in the universe as the mere epiphenomenon of the ‚natural history‘ of the universe. The ‚human presence‘ in the universe acquires a major philosophical and theological

³²⁴ Ibid., p. 207.

significance which should be reflected in the dialogue of theology and science.

This brings us to a brief examination of another important aspect of Husserl's *Crisis*, namely, his careful account of the process of mathematization (or geometrization, idealization) of nature as the main characteristic of the birth of modern science. Together with Nesteruk we will question the consequences of this process as well as the possibility of a certain 'reversion' of it, which could potentially lead towards the 'illumination' of the 'internal life' of science.

4.8. Mathematization of Nature and the Recovery of the lost Personhood

The main problem of the dialogue of theology and science, according to Nesteruk, lies in the need to cope with the fact that *'human phenomenon is being subjected to naturalization and reduced to the deficient physico-mathematical functioning of its corporeal component in which the foundation of personhood and freedom are lost.'* Human consciousness is 'objectified' and limited to a kind of *'universal logical structure which itself represents only a sector of cosmic determinism'*. The vital issue of incarnate personal existence, the 'mystery of embodiment' (as the primary existential point of intersection between history and nature in human beings) is neglected which in turn deprives humanity of its *'intrinsic reference to the transcendent and*

*personal God.*³²⁵ Nesteruk questions the preconditions for a reasonable dialogue of theology and science, i.e., the priority of personhood:

„What we see here is that the understanding of the ontology of the human condition as incarnate existence is different in theology and science. Thus the aim of mediation between theology and science is to restore the broken unity in this understanding. Thus the immediate practical task is to restore the status of personhood as that ontological priority from which science unfolds.“³²⁶

Following Husserl, he wants to show how the historical process of mathematization of nature gradually obscured the meaning and place of humanity in the universe and distorted its ontology of communion with the Divine. The ‚philosophical attitude‘ of phenomenology (in its attempt to thematize of the life-world as the primary sense-forming ‚level of reality‘) allows deconstruction of the world of mathematized scientific theories and ‚reveal‘ the hidden teleology of human spirit – the ‚constitutive‘ human subjectivity being the ‚basic ground‘ of all scientific constructs. Nesteruk argues, that ‚nature‘ is a notion articulated by humanity as a result of humanity’s embodiment and the intentional immanence of human consciousness. He wants to enquire into the roots of mathematization of nature to restore the lost image of humanity. He points out that ‚nature‘

³²⁵ Nesteruk, *Wisdom through Communion and Personhood*, p. 85; in: Meisinger, Drees, Liana; *Wisdom or Knowledge?* (includes the quotation in italics above).

³²⁶ Nesteruk, *The Universe as Communion*, p. 168.

appears as a dialogical construct in which empirical and theoretical factors permeate one another.

Nesteruk questions the basic assumption of science which claims that to proclaim something to be ‚real‘ equals to the ‚fact‘ that this particular ‚thing‘ can be described by the tools of mathematics. It is also claimed that mathematical ideas do not have temporal (transient) dimensions, so that natural science studies ‚realities‘ which are independent of history or any intervention of human beings. Contrary to this assumption Nesteruk argues that it is impossible for any ‚reality‘ to *exist* (in the ‚full‘ sense of this word) independently of the mind conceiving it and thus - whatever may be the case with the realm of Platonic ideas, human intellect is necessary to articulate the harmony observed in nature.

The problem of mathematization of nature, according to Nesteruk lies in the fact that *mental constructs are substituted for existential realities*. This also has important implications for theology: man ‚mathematized‘ not only himself but also God (i.e. ‚objectifying‘ God and ‚dismissing‘ of him as an ultimate and personal source of all being). Nesteruk contends that the language of mathematics, its laws, as the ‚common ground of all knowledge‘ do not suffice for ‚constituting‘ the ‚true‘ and ‚objective‘ reality.

Together with Husserl he asks what is the meaning and the ultimate origin of mathematically constructed reality. He agrees with the basic claim of Husserl’s *Crisis* that the modern ‚naturalization‘ and ‚objectification‘ of reality (which can be traced back to Galileo’s geometrization/idealization of nature)

lead to the loss of existential meaning of science since the issue of ‚facticity of humanity‘ as incarnate intentional immanence was not thematized. The main contribution of Husserl was his careful analysis of the process of ‚idealization‘ or conceptual ‚abstraction‘ from the ‚world of immediate experience‘ as the ‚hallmark‘ pertaining to the genesis of modern science, its mathematization (or geometrization) of nature. It resulted in transformation of our perception of the external ‚reality‘ and ultimately caused the changes in our ‚orientation‘ in the world. Being aware of this process it is necessary to revert our questioning and focus on the ‚living reality‘ and the ‚world‘ as it is simply ‚being given‘ to us in everyday experience.

The ‚crisis‘ lies in our need to ‚determine‘ whether mathematized nature provides the ultimate ‚sense of all things‘ (including man and all of his – in a certain sense even the theological – concepts) or contrarily, the role of man in ‚constitution‘ of reality is crucial and then, implicitly, mathematics is treated as derivative quality of human life. To settle the issue of the ‚mathematical nature‘ of our universe is clearly beyond the scope of our study, but posing this fundamental question is critical for Nesteruk’s conception which aims to restore the ‚broken image‘ of man as well as the future prospects for the well-being of humanity.³²⁷ All of human activity, including the scientific research should be examined

³²⁷ Nesteruk, *The Universe as Communion*, p. 199.

from the basic perspective of *existence as a gift of contemplation of the world and communion with its source.*³²⁸

Phenomenological philosophy becomes indispensable in Nesteruk's research which aims to recover the personhood and through its careful explication of the 'world of persons' hidden behind the scientific theories (i.e., behind the mathematized universe) it complements the 'scientific worldview' and helps to relate the realm of science to that of theology (i.e., 'transcendence' in cosmology is only possible through thematizing the life-world as the 'medium' of personal 'communion with the universe'). In the following paragraph we briefly examine the 'status' of science understood along the lines of Nesteruk's neo-patristic synthesis (i.e., as appropriated by existential phenomenology) and the implications of this 'methodological step' for the dialogue of science and theology.

4.9. Science as a Para-Eucharistic Work and the Dialogue of Theology and Science

Nesteruk's approach to the dialogue of science and theology and his employment of existential phenomenology, as we have seen, results in the 'deconstruction' of scientific theories. This in turn makes it possible to disclose the 'soul of science' - the active

³²⁸ „[B]y 'deconstructing' the mathematical universe and re-establishing the central role of humanity in constitution of reality, its life-world, as the telos of all scientific explanations, that one can find a way of mediating between a scientific explication of the sense and telos of the human existence, and theologically explicated existential faith whose telos directs humanity and the world to the ultimate sense of its being with God.“; Ibid., p. 205.

human consciousness questioning its place in the universe - and, at the same time, this process ‚reveals‘ the sacred elements in the ‚heart‘ of scientific experience.

The recovered ‚personhood‘ (i.e., humanity created in the image of God) is the underlying ‚sense-forming ground‘ of reality, from which the ‚abstractions‘ (from the immediate existence-in-situation) are created, that is, the philosophical conceptions and various scientific theories as ‚mathematized nature‘. This observation implies that the traces of *imago Dei* can be detectable in all achievements of science as the expression of the ‚internal life‘ of science and as such constituting its sacred dimension. In his research, Nesteruk wants to point out that, because of the articulation of nature by human incarnate subjectivity, science can be treated as a specific mode of relationship between man and God. Nesteruk’s search for the ‚transcendent ground‘ of the universe eventually allows him to claim, that science itself could be seen as the mode of experience of God and as such it can play a significant role in the spiritual life of humanity:

„[H]umanity as personhood longs for truth of existence which is in this world – through man – but not of this world. This longing forms spiritual motives of humanity and points toward the telos of all creaturehood, in which the paradox of truth of the human hypostatic existence as presence in absence will have to be finally resolved. Ecclesial humanity experiences truth of existence Eucharistically by establishing communion with the Age to Come. By so doing all sorts of

mundane scientific truths are subjected to the truth of communion and thus acquire the status of para-Eucharistic achievements.³²⁹

This is an important conclusion if we are mindful of the rather negative assessment of the science and technology characteristic for the Eastern Orthodox theology. Neopatristic-synthesis, advocated by Nesteruk, is the welcomed positive appraisal of science which can lead to the changed attitude to the West and more positive assessment of its ‚scientific revolution‘. Nesteruk’s aim is not only to evaluate the world of science, but to experience the full ‚metamorphosis‘, the transfiguration of the vision of science in the light of the coming future. He wants to see science as the para-Eucharistic activity, as a ‚cosmic liturgy‘.³³⁰ The existential character of the Eastern Orthodox theology (with its stress on the immediate experience of life as well as on eschatology³³¹) and the different historical development of the relationship between theology and science provides the platform from which Nesteruk wants to shed new light on the whole realm of science and the prospects for its dialogue with theology. Nesteruk stresses the intrinsic grace, the ‚revelation‘ of the presence of the God’s gift in science. This also allows him, at the same time, to see science as the gift of God,

³²⁹ Ibid., p. 227.

³³⁰ Nesteruk, *Light from the East*, p. 2; „Scientific activity can be treated as a *cosmic eucharistic work* (...) Science thus can be seen as a mode of religious experience, a view obvious to those scientists who participate in ecclesial communities but as yet undemonstrated to those outside such communities.“

³³¹ „From this eschatological perspective, when theology and science manifest themselves as spirit-bearing modes of the human condition, both of them exhibit kinship of immediate intentions and propensities of life.“; Ibid., p. 34.

which is being given to humanity to explore the universe, to perform the priestly role, the calling of man, and thus praise God for his good creation.

By stressing the issue of the intrinsic grace (and implicitly, the traces of *imago Dei* in all scientific representations of reality), Nesteruk also wants to point out the mystery that the world is intelligible and conceivable at all. He appeals to Kant and many philosophizing physicists and cosmologists of the twentieth century (e.g. Albert Einstein) who were amazed by the ‘irrational fact’ of the rationality of the world, the fact that the reality of the world accords with our theoretical and practical reason. This fact also leads many cosmologists to speculate about God and his activity in the universe. Nesteruk reminds us that this grace was - in the thought of the Fathers of the church - considered to be the foundation of all knowledge (and also latently present in the ancient Greek philosophy since its beginning).

Thus Nesteruk can speak about the interplay of the scientific (logos-like) intentionality and the Spirit-like (ecclesial) intentionality and claim that any ‘detection’ of the presence of the divine in the world and in human thought (i.e., the philosophical or even scientific ‘ascension’ to God), can be reasonably treated as a para-Eucharistic work, as a constant activity of this intrinsic grace of the Divine image in man (understood also as the ‘latent’ invocation of the Spirit) which is

the source of all knowledge.³³² This grace of the Spirit of God behind our scientific approach to the world - as hidden and unarticulated intentionality – waits to be expressed and taken into consideration in any interaction of theology and science.³³³

Nesteruk also wants to remind us, that the scientists themselves are often the first ones who address this fundamental mystery when they articulate their amazement over the rationality of the universe. Yet, science itself cannot provide the needed teleological account of its own existence. Scientists should be joined by theologians and together engage in the dialogue and common search for truth and wisdom, the true *telos* and sense of the whole of their activities.³³⁴

Nesteruk's understanding of science as the para-Eucharistic work thus brings the 'scientific wisdom' - which is not complete unless it is related to Eucharistic experience and its eschatological attitude – to completion, its fullness and

³³² Here we can refer to Moltmann once again and to his Eucharistic Concept of the Trinity: [T]he experience of grace arouses gratitude, and where God is known in his works, creation's song of praise awakens. Thanksgiving, prayer, adoration, praise, and the silent sinking into wonder, proceed from the energies of the Spirit who gives life, are directed towards the Son, and through the Son to the Father. The Spirit unites us with the Son, and through the Son with the Father.“; Moltmann, *The Spirit of Life*, p. 298.

³³³ Nesteruk thus draws a parallel between the liturgy on the church and the scientific activity: „*In the same way as through Liturgy Christians experience an eschatological presence of Christ, the ecclesial wisdom in the knowledge of the universe through science discloses to men the presence of the hypostasis of Christ (although in its empirical absence).*“; Nesteruk, *The Universe as Communion*, p. 217.

³³⁴ „All philosophies and sciences (...) did not feel the modes of gratitude and thanksgiving as a beginning of thought (...) The absence of eucharistic intentionality in philosophical and scientific visions of the world result in a desire for the unlimited and unconstrained possession of knowledge of things in order to use them for some particular utilitarian goals.“; Nesteruk, *The Sense of the Universe*, p. 46.

perfection.³³⁵ In this way the knowledge of science can be appropriated and transfigured into the state of ‚wisdom‘, that is, by bringing science and the particular scientist to *metanoia*, the change of mind. Thus, the scientific activity could be supplemented by the contemplation of the *ends* and *purposes of all things*.³³⁶ This change of mind (as a ‚mode‘ of ecclesial reality) entails the transfigured apprehension of the world: „*The universe acquires the sense of sacrament and is thus a correlate of the eucharistic intentionality of humanity.*“³³⁷

Besides the illumination of the sacred elements of scientific activity, Nesteruk’s research also reminds us, that there is no place for the fundamental split of mind, no need for the strict separation of the scientific knowledge from the ‚truth of theology‘. Our life does not have to be ‚compartmentalized‘, we do not have to ‚commute‘ between our scientific (civil) duties on the one side and our religious activities on the other. The realm of science meets the realm of theology within the experience of one human being, whereas the theological (ecclesial) dimension of the dialogue is necessary to provide the fuller picture of reality. Referring back to Nesteruk’s basic assumption of his research, namely, that the mediation between science and theology should be effectuated *„on the level of the infinite tasks of humanity, driven by the Holy Spirit from the future age‘*, the

³³⁵ Nesteruk, *The Universe as Communion*, p. 218f.

³³⁶ *Ibid.*, p. 145; ‚[D]econstruction‘ of the natural attitude is exactly the desire to see beyond things visible their real foundations, their underlying causes and ends which make existence specific and concrete.“

³³⁷ *Ibid.*, p. 47.

dialogue of theology and science is ‚raised‘ to the purely ‚theological mode‘ (pneumatological dimension) and acquires the crucial soteriological features.³³⁸

Expanding on some basic findings of Husserl and some of his followers (especially Jean-Luc Marion) Nesteruk’s research ‚reestablished‘ *personhood*³³⁹ as the key link of mediation between science and theology.³⁴⁰ His aim was to develop the ‚full ontology‘ which eventually allowed him to ‚immerse‘ the ‚ontology of nature‘ (i.e., of the universe articulated in an object-like manner as the construct of present-day scientific cosmology) within the wider picture of the fundamental ‚existential ontology‘ of ‚participation in the universe‘ (i.e., the communion with the universe), within the discourse of personhood.

The existential dimension of Nesteruk’s model of the dialogue of theology and science shows, that both attitudes to reality – ‚natural attitude‘ of science and the ‚phenomenological attitude‘ of Husserl’s and Marion’s philosophy (and of Nesteruk’s theology developed in a neo-patristic manner) share the same ontological ‚ground‘ in their ‚otherness‘, that is, in God, who is potentially ‚given‘ to every human subject through the ‚fact‘ of existence itself. The ‚full ontology‘ as the ontology of communion is, according to Nesteruk, the needed key for the ‚healing‘ of the disintegrated modern mind:

³³⁸ Ibid., p. 180 (217); „[T]he universe needs humanity in order to be transfigured, brought to unity with the source of its own creation and be saved from lapsing into non-being.“

³³⁹ Ibid., p. 180-181.

³⁴⁰ Ibid., p. 50.

„The opposition between the truth of theology and the truths of science is rooted, in most cases, in the disconnection of their truths from the idea of communion. In ontological (existential) terms, both science and theology have a common ground of truth, a common source of ontological otherness, which is God, whose being is revealed through the very fact of human existence as communion. The split between theology and science can be overcome if both of them are reinstated to their proper relational status in communion seen in a cosmic dimension.“³⁴¹

The whole of Nesteruk's research can also be understood as an allusion to the well renowned *Being as Communion*, the important work by another key Orthodox theologian, John Zizioulas. Viewed this way, Nesteruk's model of the dialogue of theology and science can be characterized as the phenomenologico-theological (existential) appropriation of science which eventually allows us to see our *being* in the universe *as communion*.³⁴²

³⁴¹ Ibid., p. 9.

³⁴² The notion of communion denotes *relationality* as the basic ontological category. Thus it is possible to contrast the ‚inhuman‘ face of the scientific account of scientific cosmology with the theologically appropriated cosmology. Here we can also refer to Philip Clayton and his deliberations about man as *imago dei*: „[P]ersonhood is intrinsically a relational state: one is not a person in and of oneself, in abstraction from relationships; rather, one is a person from and for one's interactions with other persons. It is a kind of relationship that is constituted simultaneously by freedom and responsibility.“; Clayton, *God and Contemporary Science*, p. 37.

Conclusion

The „Always Greater Universe“: A Phenomenological Turn in Cosmology?

The aim of this final chapter is to bring together the most important aspects of our study in an attempt to provide a ‚wider picture‘ of cosmology, as it was unfolded in our previous discussion with the chosen key proponents of the dialogue of theology and science. As we have seen at many points of our argumentation, the issue of the dialogue of scientific cosmology and theology is the epistemological problem *par excellence*. In the following paragraphs we would like to argue that Nesteruk’s treatment of the universe and the Divine (i.e., the *event of disclosure* of the universe and God in human knowledge) as the ‚saturated phenomena‘ entails that the un/knowability (of God as well as the universe) can be accepted as an invitation for science and theology for a creative cross-disciplinary as well as inter-ecumenical dialogue.³⁴³ Following Jean-Luc Marion who treats *truth* as the *saturated phenomenon*, philosophers, scientists and theologians can embark on their common quest to ‚understand understanding‘³⁴⁴ – whereas the human desire to know the unknowable can play a significant role in this process.

³⁴³ On the role of ‚the quest to know the unknowable‘ in science as well as religion and theology see more in: Bowker, *Knowing the Unknowable. Science and the Religions on God and the Unknowable*.

³⁴⁴ The phrase borrowed from Michael Heller’s book *Ultimate Explanations of the Universe*.

As was demonstrated in the previous chapter, Nesteruk's research aims to provide a balanced account of cosmology, that is, to assert that our thinking about human knowledge of the universe and of God 'springs from within our experience of life'. With the emphasis on human experience of the 'universe in God' the *pneumatological dimension* of the dialogue of theology and science comes to the foreground. It has to be seen in the Trinitarian framework of God's creation of heaven and earth, of the universe and humanity. The central position of humanity in creation (based on the Christological grounds), advocated by Nesteruk, conceived of as personhood of man created in the image of God and being on its way towards the unity with God the Creator, is the focal point of Nesteruk's argumentation. The mutuality between God's Spirit and God's Word (within the Trinitarian 'tissue' of creation) - between pneumatology and Christology - constitute the basic dimension of Nesteruk's project relating theology and cosmology aiming to provide a viable view of reality.

Thus eventually Nesteruk wants to see the pursuit of cosmology and the resulting account of the universe as the *verum, bonum et pulchrum* and not as the 'abstract science of the universe as a whole (...) leading to the 'death of the universe', certainly not in the physical, but moral sense, as that kind of being which is devoid of the value and beauty.'³⁴⁵ Nesteruk's proposition also gives our discussion with science a more

³⁴⁵ Nesteruk, *The Sense of the Universe*, p. 84.

personal dimension, it lifts the dialogue of science and theology to the qualitatively new level, that is, it opens the door for a personal ‚participation in transcendence‘ which eventually gives the existential relevance to our quest for knowledge.

Nesteruk’s Apophatic Cosmology and the End(s) of All Things

Nesteruk’s phenomenological appropriation of scientific cosmology results in his conception of *apophatic cosmology* (in the broader sense of the word) which allows him to disclose the *theological commitment* in the contemporary physical cosmology. In the following passages we focus on the chosen elements of Nesteruk’s argumentation which help us to see the interplay of anthropology and teleology in his research and to articulate more precisely the anthropological and teleological aspects of cosmology, which are the main objective of our study. In the light of Nesteruk’s research we are eventually able to ‚bring to completion‘ the previous discussion with G. Ellis, J. Moltmann, M. Heller, and some other scientists and theologians.

Our discussion with Ellis and Nesteruk on the anthropic principles showed an important fact, that the contemporary scientific cosmology challenged the prevalent methodological assumption (of science still remaining heavily under the influence of positivism), i.e., that the starting point of any scientific investigation of the universe is the *nature minus human*

subject.³⁴⁶ Both Ellis and Nesteruk expressed the desire for a more accurate approach in their quest for a synthetic account of human knowledge which strives to incorporate the ‚human knower‘ and his history in the wider context of the entire universe. The emphasis was properly laid on the inquiring human subject whose presence in the universe is not negligible, but, on the contrary, as the anthropic discussion shows, nature cannot be studied objectively, unless the issue of the inquiring human subjectivity is taken seriously as the indispensable ‚ingredient‘ of any quest for understanding (and therefore, there is no ‚objective‘ natural science if human subjectivity is ignored).

The anthropic principle is treated by many cosmologists as the necessary ‚hermeneutical link‘, which ‚leads‘ our understanding to ‚see‘ that the existence of intelligent human beings in the universe (as the active participants in the ‚history‘ of the universe which is itself fine-tuned and created for the sake of humankind) eventually express the fundamental ‚truth‘ about the universe itself.³⁴⁷ The consequences of this significant change, that is, the fact that physical cosmology as an important branch of science takes ‚anthropological‘ position in its reasoning, are clearly summarized in the wide array of monographs.

Anthropic principle, viewed as a special mode of understanding of the process of creation, has crucial

³⁴⁶ Trojan J.S., *Teologické aspekty moderní kosmologie*, p. 3. Some of the following observations in this section are also partially based on Trojan’s conclusions.

³⁴⁷ *Ibid.*

implications not only for theology of creation, but also for theological anthropology, Christology and soteriology, eschatology and ethics. The same can be said about its implications for philosophy, especially for epistemology, ontology and philosophical theology and philosophical ethics. Anthropic principle is capable of building the bridges between various branches of human knowledge and becomes a vital issue in the interdisciplinary dialogue of natural sciences, philosophy and theology. The hoped for result is the fully-developed ‚science of man‘, which is neither the domain of scientific empirical knowledge nor solely the concern of philosophical or theological reflection, but essentially an interdisciplinary task which could be undertaken only as the dynamic integration of the various modes of thought, that is, in the creative tension of the different kinds of rationality in the common quest for truth.³⁴⁸

As we have seen in our discussion with Nesteruk and Moltmann, man created in the image of God is as an essentially *relational* being standing in an irreducible existential relationship with God, the Creator. Any abstractions from this fundamental experience of ‚life in God‘ results in ‚objectification‘, the ‚eclipse‘ of the true nature of man and God as well as the sense of life in the universe. Man as a relational being created in God’s image is fundamentally open for God and his future. In this sense we understand *imago Dei* not ‚quantitatively‘, but ‚eschatologically‘, as an event of becoming fully human.

³⁴⁸ Krumpolc E., *Antropický princip*, p. 181 (paraphrased translation).

Humanity is in a process, on the way leading to ‚perfection‘ measured by the fullness of Christ, the eschatological second Adam (Eph. 4:13).

We have also seen that it is impossible to say anything about God without reference to Christ, ‚the image of the invisible God‘ (Col. 1:15), in whom the Divine and human meet. This fundamental move of God in his history of salvation makes human beings to stand ‚between heaven and earth‘. The correlative relationship between God and man, the human and Divine in Jesus Christ, and implicitly in humankind created in the image of God, shows the reciprocal relationship between Christology and theological anthropology. Nesteruk and Moltmann would agree that any question aiming to understand ‚what is man?‘ is implicitly a quest for God. The subject of theology acquires a transitory character, which means that it is impossible to express it (i.e., the ‚subject‘ and thus the ‚truth‘ of theology) unless we retire to the *permanent oscillations between the statements about man and his world on the one side and about God and his creative works of the other*.³⁴⁹ They also remind us that there is a need to stress this primary existential fact (i.e., of man’s position in the world) and conceive of it in the cosmic dimensions if we want to speak reasonably about God and his creation. The universe becomes the fundamental existential background of all of our thinking, including that of theology.

³⁴⁹ Trojan J.S., *Teologické aspekty moderní kosmologie*, p. 14.

Nesteruk claims that the concept of creation of the world must be rethought in the light of contemporary cosmology and existential phenomenology. If this is done, the Christian doctrine of creation acquires a different meaning. First of all, Nesteruk stresses the *personal character* of our knowledge of the universe: „[I]t is the coming into existence of personal life in the Divine image, capable of recognizing its createdness (...) Creation as inseparable from the life of subjectivity thus *acquires a status of a saturated phenomenon*.“³⁵⁰ Nesteruk argues that our study of the foundations of the universe, expressed by the various cosmological models, reveals not only the nature of our world in which we live, but also teaches us something significant about the nature of humanity. The cosmological theories predicating the beginning and the end of the universe display some traces of the ‚hidden‘ *imago Dei*. Humanity in turn proves itself to be the ‚ultimate manifestation of God‘ in his creation. Nesteruk provides this concise reformulation of the concept of creation from the cosmological perspective:

„The saturating givenness of creation makes it impossible to think and speak of creation as separated and antecedently detached from the facticity of consciousness. The theological archetype of this inseparability is in the Incarnate Christ who, while being in human flesh of the universe, always remained with the Father, thus holding the entire universe through his loving insight as that ‚all in all‘ which

³⁵⁰ Nesteruk, *The Universe as a Saturated Phenomenon*, p. 236.

humanity archetypically experiences in its attempts to grasp creation cosmologically.³⁵¹

This brings us to stress the eschatological perspective from which the properly understood theology (Christology) as well as theological anthropology unfolds. Moltmann's (and Peters's) theology depicts the God of hope as the ultimate 'goal' and the future of our world. The issue of the ultimate future of the universe thus constitutes the significant teleological aspect, or rather, the perspective from which our deliberations about cosmology and its relation to theology are illuminated. As we have seen, theological anthropology (especially in our exposition of Nesteruk's research) opens the door for pneumatology, the theology of the indwelling (inhabitation) of the Spirit of God the Creator, who is actively present within its creation as 'the end of all things'.

Human beings, created in the image of God are, according to Nesteruk, endowed with the faculty of contemplation which is able to disclose the 'inner essences', God's intentions in his creation. The presence of the Spirit in creation is fundamentally hidden, thus there is a need to employ the concept of *God's kenosis*, his hidden rule in the universe. The *kenotic character* of God (and of our knowledge of him as well as our knowledge of the universe) was rightly stressed by the key participants of the dialogue in our study. God is thus revealed as the 'unseen' guarantor of order in creation (not only in terms of fundamental

³⁵¹ *Ibid.*, p. 256.

laws of nature but especially when the ethical dimension - the constrains woven into the fabric of creation - as well as its aesthetic elements are taken into consideration). Nesteruk's research addresses this fundamental mystery which takes the form of the intelligibility (explicability) of our universe. His apophatic cosmology wants to show that (and how) this explicability of the universe, which encapsulates the issue of the ultimate causation of the universe (the big bang) as well as the fundamental principles of the physical cosmology (e.g. the cosmological principle) and ultimately, the subject matter of cosmology itself, that is, the universe as a whole *forms* the *telos* of cosmological *explication*.

Nesteruk deals with the ‚formal‘ purposiveness of cosmology and advocates for the legitimacy of the employment of the language of teleology in our quest for understanding the ‚mystery‘ of our universe:

„In spite of a general tendency in science to dispense with teleology (...) due to the specificity of the subject matter in cosmology, its research goes on under the assumption that there is a goal of research, the motivational purpose, related to the explicability of the universe. This latter explicability originates in the human condition, that is in the human intentional search for the sense of its own existence in the universe. Thus the purpose of explanation in cosmology is related to the explication of the human condition.“³⁵²

³⁵² Nesteruk, *Cosmology and Teleology*, p. 1330.

He stresses the fact that the conscious human beings are at the same time the consciousness of the universe – employing the language of Husserl’s paradox of human subjectivity – which eventually leads him to assert the priority of the category of reciprocity. We cannot fully know ourselves (i.e., be conscious of ourselves) unless we take seriously the quest to know the world we live in. Nesteruk explains further the priority of *relationality* and *reciprocity* (in the light of the spiritual dimension of the dialogue discussed above) over against the language of reductionism employing the concepts of identity, chance and necessity. He stresses the historical dimension of scientific cosmology, or to put it differently, the *event-like character* of our knowledge of the universe: „The cosmologist’s own *historical consciousness* is involved and in analogy with historical science, cosmological discourse reveals itself as a *form of consciousness* that humanity (as community) has of itself.“³⁵³ Nesteruk’s study and its ‚revelation‘ of the telos of cosmological explication sheds light on the history of man and the history of his understanding of his position in the universe. Viewed this way, the whole of Nesteruk’s research ‚reveals‘ the hidden theological commitment in the study of scientific cosmology. The phenomenological perspective from which Nesteruk starts allows him to conclude that *,the beginning and the end of the universe in human thought is just a mode of this same thought speaking of its own beginning*

³⁵³ Nesteruk, *The Sense of the Universe*, p. 114 [emphasis, RL].

*and its own consummation and implying a transcendent reference.*³⁵⁴

The theological commitment is, according to Nesteruk, deeply anthropological, that is, man's unique position in the universe propels him to study the universe not only 'according to its nature' (which is the domain of natural sciences) but he also wants to understand the underlying sense of all things. This is accomplished when 'the purposes and ends of beings as they stand with respect to the *place* and *goals* of humanity in creation' (pertaining to man's ideals and his religious aspirations) are taken into consideration.³⁵⁵ Thus, the human need to 'understand understanding', to see the universe as 'all in all' (which is, according to Nesteruk also the 'primary existential memory') is the 'engine' of all cosmological research aiming to provide the final explanation.

This assertion constitutes *the key teleological aspect* (telos in the sense of a final explanation of the sense of our existence in the universe) of our study, which, at the same time encompasses all the other aspects discussed above. The theological commitment, employed in Nesteruk's dialogue, also provides the ground from which he can question the ambitions of modern science, that is, its aim to provide the exact and demonstrable knowledge of all phenomena. Nesteruk criticizes science for the illegitimate crossing of the borders of its sphere of operation, and

³⁵⁴ Ibid.

³⁵⁵ Nesteruk, *Theological Commitment in Modern Cosmology and the Demarcation between the Natural and Human Sciences in the Knowledge of the Universe*, p. 57.

wants to elucidate the proper role and ‚limits‘ of secular reason. He appeals to theology and claims that its constant role is to provide a constructive critique of society and its culture: „In so doing, theology asserts itself as a meta-discourse, i.e., as that form of critical thinking about the different modalities of social activity, including science, which express the Word of God.“³⁵⁶

All of the participants of our dialogue addressed the disturbing fact of the fragmentation of our knowledge which, since the modern times, lead to the development of separate cultures – that of natural sciences on the one side and the humanities on the other (we can also mention the ‚secluded existence‘ of theology within the latter camp). This causes us to mention another teleological aspect (or the other side of the overall ‚telos of explication‘), namely, *telos* in a sense of the ‚full‘ or ‚perfected‘ *account of our knowledge* bringing about a coherent picture of reality. The dialogue of theology and science – as one important trend of contemporary theology - asserts itself as a ‚desire‘ to overcome this fragmentation of knowledge, which, as we have seen in our discussion with Moltmann and Nesteruk, will be ultimately accomplished in the future age, when God will be ‚all in all‘. Nevertheless, this process of mediation between all branches of human knowledge itself could be understood as movement towards the *telos* of man and the cosmos, which is the deification, the consummation of creation by God and his future.

³⁵⁶ Ibid., p. 56.

At this point we can refer to the synthesis of Murphy and Ellis who also asserted the ‚teleological‘ role of theology, that is, its ‚function‘ as the key integrating element of our knowledge of man on the one hand and the cosmos on the other. The comparison with the synthesis of Nesteruk clearly shows the differences between the West and the East pertaining to the particular understanding of the nature of theology and, consequently, the approach to the dialogue itself. Eastern Orthodoxy has always understood human reason in the light of (‚existential‘) faith. In the West, on the other hand, the attempts to ‚rationalize‘ theology, that is, to construe theology in the light of human *ratio*, within the ‚narrow‘ confines of pure reason were predominant. It is here where we can suspect Nesteruk’s critique of some of the assumptions of Murphy and Ellis. First of all, Nesteruk would question their decision to ‚limit‘ theology (i.e. ‚design‘ theology as a specific ‚research program‘ construed ad hoc) and choose only those elements which would go in line with the other assumptions of their research. Nesteruk would argue:

„The critical function of theology in respect to other discourses never allows it to slip into such a position that its scope and place will be determined by other discourses, for example by the science-religion dialogue with its demands to deal with some particular issues (...) theology can never be defined and positioned by secular reason and

thus it does not accept the complete autonomy of that sphere of reality which is asserted through rational understanding."³⁵⁷

He contends that the issue of continuity/discontinuity or symmetry/asymmetry in the dialogue of theology and science has to be taken seriously.³⁵⁸ Thus, as a consequence, Nesteruk would question the existential relevance of theology as a ‚research program‘ and so the value of the whole model of science and theology presented by Murphy and Ellis. Although they claim for theology the key role in their hierarchy of sciences, Nesteruk would still ‚perceive‘ the lack of existential sense (meaning), which is the result of the narrowly defined theology and the relaxation of the fundamental link between the ‚truth‘ of theology and the participation in the ‚mystical‘ life of the church. Although some interesting parallels could be found between Nesteruk´s and Ellis´ understanding (following Yoder´s theology) of the church and its role in society, namely, seeing it as the alternative reality within this world, the issue of the

³⁵⁷ Nesteruk, *Theological Commitment in Modern Cosmology and the Demarcation between the Natural and Human Sciences in the Knowledge of the Universe*, p. 56.

³⁵⁸ Nesteruk argues that the Western discussion on the methodology of the dialogue tends to stress the ‚need‘ of theology (which is standing in a plainly asymmetrical relationship to the world of science) to adjust to some of the methodological assumptions and procedures of science. It seems to be only partially true, since there are proposals aiming to provide logically consistent and comprehensive account of human knowledge, yet still clearly aware of the ‚distinctives‘ in the aim, scope and method of theology as well as of those of science. The problem of asymmetry was addressed (in a rather balanced way) by N.H.Gregersen in his essay *‚A Contextual Coherence Theory for the Science-Theology Dialogue‘*. His approach is an attempt to argue that it is necessary to ‚leave room‘ for a creative tension between the realm of science and theology: *„A commitment to the interconnectedness of human knowledge has thus to be balanced by a sensibility to the differences in our approaches to reality.“*; Gregersen, van Huysteen; *Rethinking Theology and Science*, p. 120.

existential relevance of the dialogue of science and theology understood on the background of the ‚ecclesial reality‘ forms another key aspect of Nesteruk’s theological commitment.³⁵⁹ Nesteruk would always stress the ‚broken symmetry‘ of the dialogue of science and theology.³⁶⁰

As we have already mentioned, the whole model of Nesteruk’s approach to the dialogue of science and theology can be compared to that of Murphy and Ellis based on their decision to relate the natural and human branches of accumulated human knowledge in order to provide a coherent worldview, that is, an account of Cosmology (understood in a broad, pre-modern sense of the word). The specific contribution of Nesteruk and the basic difference between both syntheses is his decision to trace the key elements of human science within the confines of the modern scientific cosmology itself. As we have seen, cosmology shows a wide array of features of a human science and thus it is presented by Nesteruk ‚as standing at the crossroads of the natural and human sciences‘.

This allows him to find the common ‚existential‘ ground in the human knower, being at the same time the ‚creator of cosmology‘ as well as the object in the universe (as the ‚object‘ of knowledge). He employs both, the language of causality and

³⁵⁹ In this respect Nesteruk’s research has also some similar traces with the ‚program‘ of Radical orthodoxy. See Nesteruk’s comments in his ‚The Sense of the Universe‘, p. 67.

³⁶⁰ „The issue of existential implications of the dialogue becomes vitally important for theologians of the Eastern Orthodox faith who confess theology not as an academic and abstract discipline but as a mode of life and experience of God.”; Nesteruk, *Ecclesial Dimension in the Eastern Orthodox Appropriation of Modern Science*, p. 682.

intentionality³⁶¹ in his research, whereas primacy is given to intentionality as the fundamental feature pertaining to the nature of human spirit (i.e., man's freedom reflecting the *imago dei*) and all of its subsequent articulations of reality, be it within the 'natural' or the 'human' branches of the hierarchy of sciences. The asymmetry, mentioned above, seems to be the strength, but potentially also a weakness of Nesteruk's approach. The findings of science, according to Nesteruk, never contradict the 'truth' of theology, since science studies the world created by God. Thus eventually, its findings could be 'subordinated' to theology (i.e., science is understood by Nesteruk as the subdomain of theology). This is also the reason why the dialogue of science and theology can never be held (and evaluated) on the 'neutral ground' but always in the light of the faith of the church.³⁶²

At this point we can also question Nesteruk's understanding of 'natural theology' (and, correspondingly, the 'nature of theology'), that is, to point out the need to examine to what

³⁶¹ Nesteruk argues that the scientific cosmology itself displays the interplay of two 'languages': As *causality* he understands the universe as a 'product' of discursive reason, whereas by referring to *intencionalidad* he means the 'fact' that the universe is experienced through our participation in or communion with the world (with its 'causality') understood as the 'natural' context of our life.

³⁶² Teresa Obolevitch warns against the latent tendency of 'concordism', that is, the claim that 'truth is always on the side of theology' and therefore all of the findings of scientific research have to be interpreted in such a way that they always match with the 'truths' of theology. This 'concordistic' tendency pertains to theological tradition with its already cumulated articulations of faith, be it the truths of Revelation, the understanding of the relation of faith and reason but also the apophatic dimension of the theology of the church. Since 'God-in-himself' is fundamentally unknowable (according to the Eastern Orthodox theology), there is no problem to 'reconcile methodologically' all scientific facts with the apophatic understanding of God and theology; Obolevitch, *Synteza neopatrystyczna a nauka*, p. 92.

extent he was faithful to his ‚claim‘ that his writings follow the vision (and the method) of Thomas Torrance. To settle this issue would require a careful analysis of Torrance’s writings, which is beyond the scope of our study. Yet it seems plausible to conclude that Nesteruk’s research is rightly referring to Torrance, because of the basic fundamental assumption which they have in common, namely, the understanding of (existential) faith as the prerequisite of any knowledge.³⁶³

The *personal character of knowledge*, the rediscovery of the key role of human body in the process of acquisition of knowledge, the recovery of tradition and faith - the crucial features of Nesteruk’s approach which can be also paralleled with Michael Polanyi’s philosophy – are the key aspects which should lead to a careful reflection of all presuppositions of our ‚practice of knowledge‘, that is, in our ‚doing‘ of philosophy, theology or science. Although we do not have to agree with Nesteruk and be in favor of more ‚critical‘ approaches to theology and its dialogue with the sciences, still there is a need to reflect the ‚subjectively-relative‘ ground of our particular ‚roads to reality‘. Thus, eventually we can claim that „*Nesteruk shows correctly that different alternatives are always possible and*

³⁶³ Heren provides the account of the way in which Torrance and Nesteruk understand and develop ‚natural theology‘; Heren, *Scientific of Existential? a Comparison of Thomas Torrance to Alexei Nesteruk and whether the latter uses what he former refers to as ‚natural theology‘*, p. 11; A thorough explanation of his own employment of Torrance’s most important concepts can be found in Nesteruk’s recent study: *„Universe, Incarnation and Humanity: Theology of Thomas Torrance and Modern Cosmology‘* (2016).

*that the critical approach in theology is just as subjective and personal as commitments of faith.*³⁶⁴

Since the stance of Nesteruk, claiming the ‚superiority‘ of theological reasoning (due to its peculiarity) seems to be plausible and problematic at the same time, it is necessary to argue that there is a need to find a suitable ‚platform‘ on which the whole enterprise of the dialogue can be reasonably developed, in order to avoid the oversimplification, one-sidedness and thus the misunderstandings of all kinds. As we have seen, it has to be undertaken as an epistemological reflection of the methods, goals and especially the limits of both, theology and science. All of the participants in our dialogue proposed different solutions in their search for an ‚interdisciplinary space‘ for the dialogue, be it the comparison and evaluation of various ‚scientific programs‘, the return to the pre-modern concept of wisdom, or, in more general terms, the call for a ‚panoramic worldview‘, the coherent picture of reality, which is the hoped for ‚product‘ of cooperation of philosophy, theology and science in their search for understanding.

The concept of worldview can potentially play the role of the needed ‚notional framework‘ (or the specific ‚intellectual context‘) of this common undertaking. Following Nesteruk’s employment of ‚apophaticism‘ in the dialogue of theology and science we would like to stress the neglected element of our search for knowledge, which is the ‚humility‘ in all of our attempts to argue

³⁶⁴ le Roux, *The Universe as Communion*, p. 1.

about the ultimate nature and the future of life in the universe. Nesteruk would agree with D. Naugle, that life proceeds ‚cardioptically‘, that is ‚out of the vision of the heart‘, which means, that it is possible to speak about a fundamental spiritual dimension in the core of our existence from which our being in the universe ‚unfolds‘ in space and time.

As it is not exclusively the privilege of science nor of theology to determine the nature of their mutual relationship, the mediatory role of philosophy (epistemology) plays a significant role in Nesteruk’s research. His decision to employ apophatic language (especially Marion’s philosophy and the concept of saturated phenomena), in his research and use the phenomenological construct of ‚presence in absence‘, helps him to relate the realm of theology to the realm of cosmology, since in both cases the ‚object‘ of their interest cannot be fully grasped nor expressed in the language of concepts, but it can only be approached in all sorts of approximations or extrapolations.

He addresses the ‚incompleteness‘ of the ‚truths‘ of scientific cosmology (or science in general), that is, the partial character of the physical description of the universe and argues that it can be, in a certain sense, paralleled with the ‚inexhaustible truth‘ of theology. This allows him to speak about an ‚open-ended epistemology‘³⁶⁵ pertaining to both realms, i.e., that of theology as well as cosmology:

³⁶⁵ This is the term developed by Nesteruk in his early work *Light from the East*. The concept was advanced in his later writings in which he employed various conceptual tools of

„The ambiguity of ‚presence in absence‘ of the universe deprives a genuine cosmological project of any flavour of foundationalism understood as an epistemological correlate of the notion of an ontological ground, be it the constituting subjectivity of the self, or the outer universe as the underlying substance.“³⁶⁶

As the consequence of this ‚lack of grounding‘, there is no need to reduce human subjectivity deterministically to the material (substance) of the world nor to treat it idealistically as the ground of the world. On the contrary, human subjectivity ‚is being constituted through its openness to the universe‘, precisely because of the ‚saturating givenness‘ of the universe (as manifestation) and God. The ‚excess of intuition‘ pertaining to the ‚unknowability‘ of the universe on the one hand and the ‚mystery‘ of God on the other is the similar feature of both science and theology as well as the ‚place‘ where they can meet within the full experience of life.

The eschatological dimension secures the fulfillment of ‚sense of life‘, pointing towards the ‚state of affairs‘ when the ‚presence in absence‘ of God and the universe will not be possible anymore, since *the communion with God – when he will be ‚all in all‘ – is the end of all things*. That is the reason why Nesteruk, as an Orthodox theologian, claims the fundamental importance for the ecclesial dimension of the dialogue as its indispensable element which gives the right perspective on the entire universe

existential phenomenology. For ‚open-ended epistemology‘ see more in: Nesteruk, *Light from the East*, p. 65-66.

³⁶⁶ Nesteruk, *The Sense of the Universe*, p. 100-101.

seen ‚cardioptically‘ (coram Deo). Nevertheless, Nesteruk’s strong stance claiming the indispensable role of the ecclesial community as the basic assumption of his concept of the dialogue of science and theology can be inadmissible for some scientists. It is exactly here where we can expect the strongest wave of their criticism.

The Relevance of Cosmology Today

Mindful of the phenomenological (and transcendental) standpoint of Nesteruk’s research we can finally examine in more detail what is meant by the problem of the purpose of life (and thus its ‚sense‘), the ‚end‘ for which we exist in the universe. The aim of this paragraph is to elucidate this fundamental existential question which is driving the whole history of human thought (as well as our study as its ‚ultimate‘ teleological aspect), and thus attempt to grasp the relevance of contemporary scientific cosmology (and its philosophical and theological reflection) for our ‚historical existence‘, or simply, for our life as it ‚happens‘ today. Nesteruk’s methodology allows us to see the modes in which the universe, our life, and ultimately, God are ‚presented‘ to our understanding. It also provides the tools to evaluate the current discussion on the sense of life and the sense of the universe in the light of modern scientific cosmology.

The comparison with Michael Heller’s deliberations about the problem of sense will help us to see the ‚drama‘ of human life in the universe. It is also the culmination of our discussion with George Ellis on the anthropic character of our universe

understood in the Trinitarian framework of theology of creation, as it was developed and proposed by J. Moltmann. The question of meaning of life, which was open by the anthropic discussion in cosmology, should be treated seriously, since it is also the central problem of theology. Nevertheless, as Heller argues, it is often neglected by theology, which (itself ‚fragmented‘) is preoccupied mainly with ‚fragments‘ of reality, avoiding the big questions presented by the present-day cosmology. Heller, whose life-long interest in science-theology interface could be characterized as the tracing of the ‚big‘ or ‚limit‘ questions in the realm of science and the subsequent relating them to the realm of theology, expresses the ultimate problem of both science and theology in the following words:

„The questions of the sense of man and the sense of the universe are closely intertwined. Indeed, together they form one Great Question. Man is genetically connected with the universe. The roots of man have grown with the history of the universe. If the universe has sense then this sense also probably extends to man since he is a part – still more, an element in the structure – of the universe. After all, could a man exist, bestowed with sense, in a senseless universe?“³⁶⁷

According to Heller, the problem of sense is closely related to the question of creation. Thus, our discussion in this final section will oscillate between these two ‚poles‘ and will be finally evaluated in the light of the theology of J. Moltmann. As the quotation shows, in general terms the position of Heller is very

³⁶⁷ Heller, *The Sense of Life and the Sense of the Universe*, p. 145-146.

similar to Nesteruk's assertion that the question of the origin and the end of the universe and the origin and the end of human life (of a particular individual) are inseparable and form in fact one ultimate question.

Nevertheless, it is important to stress that they both rather emphasize the 'opposite' aspects of the fundamental mystery of our existence. Indeed, there is always an alternative and we face the need to determine a starting point of our quest: either we can start deriving the 'sense of all' from the 'external' universe (as the cosmological concept of spacio-temporal superstructure showing the high degree of complexity) and then 'transfer' thus 'determined' sense to man as to the 'relatively negligible' part of the universe. Or vice versa, we can start with the human embodied existence - as the center of *disclosure* and *manifestation* of the universe - which eventually gives sense to the cosmological picture of reality with its 'evolutionary history' of the 'space-time continuum' of the universe.

At this point it is necessary to remind the reader that the motivation of Nesteruk's research was to examine the existential relevance of the contemporary scientific cosmology which was studied from the specific standpoint - as the contemplation of the elementary anxieties of human life in the boundless universe, that is, in the immensities of space and time of our cosmos as they are presented by the current account of scientific cosmology. Nesteruk, aware of a certain 'disproportion' and 'discontinuity' between the 'truth' of theology and the results of scientific research, aims to develop a balanced cosmology, which is based on the paradoxical position of man in the universe. Our

discussion with all of the participants of the dialogue points towards the ‚unscientific‘ question ‚why‘ do we, human beings, exist in the universe, what is the ‚purpose‘ or the ‚end‘ of it all?

These elementary questions open our search for sense of our existence in the universe and as such it is an indispensable and permanent feature of our intellectual life. Our unceasing desire to provide some ‚final‘ answer can be understood as the strife to overcome the anxiety of our existence in the vastness of the cosmos and to feel at home in the universe again. Generally, when the question ‚why‘ appears, it indicates that ‚normal‘ order of things (as we know it) was disrupted and consequently, it is an expression of a need to cope with the resulting ‚disequilibrium‘ in our knowledge. Thus, we can treat it as an invitation to integrate the ‚new‘ and ‚unknown‘ to our current understanding of our being in the world – the ‚why‘ question sets the process of ‚oikeiōsis‘ into motion.³⁶⁸

As we have seen earlier in our study, this can be solved if we find the balanced account of theology of nature on the one hand and theology of man on the other. Heller also tries to provide some sort of a balanced natural theology (and eventually also

³⁶⁸ See more in: Spaemann, Löw; *Die Frage Wozu? Geschichte und Wiederentdeckung des teleologischen Denkens*. Similarly Toulmin: „As human beings, we need to understand our own position vis-à-vis the rest of nature, in ways that will permit us to recognize, and feel, that the world is our ‚home‘ (...) Only then can we learn to handle ourselves in such a way that we are truly at home in the natural world, and that natural home itself is capable of remaining the kind of home it can be for human beings.“; Toulmin, *Return to Cosmology*, p. 265.

a ,theology of science³⁶⁹) which is capable to unite the world of nature with the world of humanity in cosmic dimensions – within the evolutionary account of the universe. He depicts human being as the result of the cosmic evolution, that is, as a part of cosmic ,history‘, understood in the cosmic scales of billions of years. In this perspective, the estimated span of ,existence of the intelligent life‘ in the universe is only a fraction of the overall cosmic ,history‘, in fact it constitutes the very late phase of the process of evolution of the universe.

It seems that Heller stresses the ,causal dimension‘ of cosmological reasoning (that is a bottom-up ,ascention‘ from the micro-level of ,empirical world‘ towards the ,structures‘ of higher complexity) which potentially entails the danger of one-sided understanding of the conscious human beings, that is, in a rather reductionistic sense, as the epiphenomenon of the physical (or of ,nature‘ in a physical sense). In this case it is understandable, that human beings could eventually ,feel crushed under the insignificant facts‘ of cosmology, Nesteruk argues, and that the current scientific picture presenting the insignificant position of man in the universe would result in the ,feeling‘ of the ,cosmic homelessness‘.

Nesteruk, contrary to Heller, stresses the ,intentional dimension‘ of scientific cosmology, that is the top-down inference, which is based on the intentional character of the

³⁶⁹ See especially: Heller, *The New Physics and a New Theology*; Macek, *Theology of Science according to Father Michał Heller*; Mączka, Urbańczyk; *Teologia nauki*.

inquiring human subject, the ‚genetic *historical* priority over the post-factum made non-egocentric claims about the reality of the universe as if it is in itself‘.³⁷⁰ Any claim about the ‚history‘ of the universe is ‚senseless‘ without the presence of conscious human beings in the universe. Science should avoid the tendency of making conscious life merely an aspect of cosmic determinism, because the event-like character of the incarnate life (being itself the ‚link‘ to ‚freedom‘) is hidden and eventually the account of humanity (with its characteristic features as historicity, its personal and intersubjective dimension) are distorted and thus the reference to the personal God is lost. Nesteruk argues, that there is a fundamental intrinsic ambivalence in cosmology itself:

„Being a subject of the world man articulates the whole universe on the grounds of its existential inference of its commensurability with the universe. Being an object, the human being realises its insignificance for the whole universe and thus its incommensurability with it. It is the sense of commensurability which is embedded in cosmologist’s intentionality of believing in and predicating of the universe as a whole. And it is the sense of incommensurability which is implied by cosmologists’ physical embodiment that advances their search for the

³⁷⁰ Nesteruk advocates for the suspension of the natural attitude in our approach to ‚history‘ of the universe and claims that we cannot conceive of history unless the continuity of human consciousness is assumed as the communion with some ‚personal‘ (hypostatic) intelligence (...) The underlying and forming principle of cosmological ‚historicity‘ is physical causality based on impersonal physical laws which are articulated by humanity (...) The real historicity of cosmological research can be revealed only if one treats the developing content of cosmological ideas as history of human subjectivity rooted in its internal time consciousness, and as a cognitive process, which is always turned towards the future. In this case one can conjecture that cosmological ‚history‘ is the outward encoding of human history in a very special sense, as being in a situation of incarnate subjectivity.“, *The Universe as Communion*, p. 69.

structure of the universe based on physical causality. In spite of its paradoxical standing this twofold perception of the interplay between humanity and the universe reflects an inevitable feature of any disclosure of being by human agency. In this sense the unity of opposites in this paradox is still preserved by the uniqueness of humanity as the centre of disclosure.”³⁷¹

This intrinsic ‚ambivalence‘ of cosmology, which displays a number of elementary features of human sciences helps Nesteruk, as we have seen, to relate cosmology to theology and explore the relevance of the ancient theological concepts of the Church Fathers (especially their theological anthropology) in the dialogue with contemporary science. This allows Nesteruk to articulate the strong theological commitment of scientific cosmology and assert that cosmology could be the perfect partner for theology in the common quest to explicate the ultimate sense of human existence in the universe, the mystery of being.³⁷²

The future perspective in the dialogue of theology with scientific cosmology provides the full picture in which we are ‚confronted with the beauty and logical structure of the Whole, the problem of Sense becomes keener, as does the problem of Sense in the existential meaning for all of us‘.³⁷³ Nesteruk

³⁷¹ Nesteruk, *Cosmology on the Crossroads of the Natural and Human Sciences*, p. 9.

³⁷² Nesteruk, *Light from the East*, p. 98-99; „It is the person, through an ability to be in communion with God, via a spiritual intellect (nous), which is granted as a gift to know God from within the created world, who establishes the meaning of reality and the criteria for its truth. For without our communion with God, the reality, articulated by persons in the created realm as knowledge of events and objects, theologically speaking, has no being at all.”

³⁷³ Heller, *The Sense of Life and the Sense of the Universe*, p. 176.

stresses repeatedly, that Orthodox theology strives to maintain that reality (understood in a broad theological sense) is much wider than that which is known to human beings through their reason and scientific research:

„We have lost the faculty of addressing reality as a whole (of seeing in it the source and sustainer of life), the capacity to respond with our whole being to the being of the Wholly Other, who presents himself to us through the created universe.“³⁷⁴

In this context Nesteruk understands and develops his model of the relationship of theology and science and argues that precisely here we can find the specific contribution of the Eastern Orthodox faith to the dialogue as it is practiced in the West.³⁷⁵

This basic observation ‚orientates‘ Nesteruk’s research, whose aim was to explain, first of all, the ‚facticity‘ of cosmology (or science in general). Ultimately, science ‚reveals‘ itself to be a ‚*mode of our experience of the world as given*‘. His ‚theological‘ stance allows him to argue, that transcendence in cognitive actions is possible after all, that our thinking of the universe itself is transcending the limits of thought. Nesteruk demonstrates that ‚transcendence‘ in the case of cosmology (as

³⁷⁴ Nesteruk, *Light from the East*, p. 9.

³⁷⁵ *Ibid.*, p. 12; Nesteruk’s emphasis on the primacy of the human person, that is, treating of human subject of knowledge as the ‚core‘ of the dialogue of theology and science is the main feature of Nesteruk’s vision. Specifically, human persons are to be seen as „*the center of being to mediate between the world and God and to praise the Creator through creation, by carrying out its cosmic liturgical function, which can include the mediation between theology and science.*”

an act of human will and the expression of human desire for ‚the beyond‘) is possible only if the ‚world of persons‘ in their immediate existence in situation is taken into consideration. Since cosmology is imbued with anthropology, that is, it shows some basic aspects of human science, it is according to Nesteruk possible to argue that the apophatic method can be employed in our philosophical and theological appropriation of cosmology.

The telos of explication in cosmology has the personal dimension, as we have seen, it was directed towards the ‚sense-forming level‘ of reality (i.e., personhood) providing the ‚context‘ for our final ‚explanation‘ of our being in the world. The contingent facticity of our universe (and of scientific cosmology studying it) needs to be supplemented with explication of the basic premises pertaining to the coherence between human rationality and the rationality of the cosmos, in order to get the balanced account of reality. The ‚mystery‘ of human capacity to articulate the universe as a whole has to be addressed. Theology of man as imago Dei is the focal point of our theological ‚introspection upon science‘; scientific theories themselves exhibit the traces of the imago Dei in man.

„The anthropology of the Divine image reveals itself through its teleological mode, as an implicit foundation of the cosmological discourse.“³⁷⁶ Thus, explicating the personal dimension of

³⁷⁶ Nesteruk, *The Sense of the Universe*, p. 477; „However, teleology is implied here not in a traditional sense related to the purposiveness of the universe’s physical evolution, rather it is implied as a ‚formal‘ purposiveness as explicability of the universe being linked to the human intentional search for the sense of its own existence.“

cosmology is (for Nesteruk) the only plausible way how to proceed in the dialogue of theology and science. When this is done, Nesteruk aims to develop the existentially relevant ‚transcendence‘ pertaining to the human person itself, which again is conceivable only ‚towards‘ the Person (understood in its ‚fullness‘, i.e. eschatologically). Here again he stresses the ecclesial dimension in his attempt to grasp fully the sense of our existence in the universe, since the ‚ecclesial existence‘ is intrinsically linked to eschatology.

Nesteruk’s research wanted to remind us that the ‚truth‘ belongs to the future – the man and the universe are in a ‚movement‘, that is, they are ‚eschatologically oriented‘ towards their final ‚realization‘: „Within the Christian understanding of teleology, the *universe can be treated merely as an event in the history of salvation* and the *meaning* of its existence as well as ours *comes from the eschatological future.*“³⁷⁷ Fundamentally, our lives are lived in hope and expectation of the future fulfillment of the sense of our existence in the universe.

The cosmic dimension of theology, which is based on creation and the Incarnation of the Logos of God in Jesus Christ (as the Head of all creation), reveals the spiritual, sacred dimension of life in the universe and can lead us towards a changed attitude to *nature* (the universe) seen *as creation*, thus giving us the right perspective on the relation of God, man and the universe.³⁷⁸

³⁷⁷ Nesteruk, *The Universe as Communion*, p. 265 [emphasis, RL].

³⁷⁸ The Cosmic Christ theology has always been an important part of lively spiritual traditions resurging repeatedly in the history of Christendom (e.g. of Franciscans). Sr. Margaret Pirkl OSF

Nesteruk's strife to see a person in the light of its telos gives the right perspective and orientation and ultimately, it has the potential to renew our sense of belonging to the great Whole.

Although we might not fully identify with Nesteruk's apophatic approach to the dialogue of cosmology and theology, his caution about the 'naturalistic' tendencies in science as well as in the ongoing dialogue with theology should be treated seriously as a very timely reminder. Science can, in a certain sense, learn from theology, which realizes the intrinsic limits of its knowledge of the Divine, and consequently, expresses its 'truth' as the interplay of the cataphatic and apophatic statements. The phenomenological treatment of scientific cosmology, as the self-reflection on the teleological activity of the scientists, helps science to understand itself and, as a result, to acquire a much wiser and more humble relationship to the 'limited scope' of its findings. This seems to be an appropriate suggestion, since the fragmented nature of science and the enormous scale of the accumulated knowledge results in the sheer existential disorientation and the loss of understanding of the 'purpose', 'place' and 'function' of science in human life as well as its social and cultural relevance.

In scientific cosmology, which itself asks the ultimate questions (and by doing so it overlaps with the 'sphere of

(1928-2016), a nun, a scientist, specializing in the earth sciences and astronomy, as well as a professor of theology provides description of the cosmic 'spiritual theology' in one of her papers. Pirkl, *The Cosmic Christ*, p. 1. The works of Nesteruk and Moltmann are also the encouragement for us to explore the 'lost riches' of such a spirituality in our secularized age.

operation' of philosophy and theology) Nesteruk finds the potential 'point of access' through which the basic assumptions of the scientific method (which are often assumed without suitable reflection) as well as the whole of the 'scientific industry' could be enlightened 'philosophically' and 'theologically'. His apophaticism seems to be the ideal 'tool' which can be applied to 'illuminate' the 'limits' of each branch of science on the one hand, and to refer it to the ultimate horizon, to see each particular science in the context of 'the whole' of human knowledge, on the other.

Thus, 'apophatic cosmology' itself can maintain the needed creative tension between the philosophical, theological and scientific thinking and, consequently, it can acquire a much wiser attitude to its 'teleological quest' pertaining to the beginning and the end of the universe. Cosmology should be studied not only as a science of the 'external' universe, as the rational construct presenting the hostile environment for our insignificant existence. Employing phenomenological philosophy Nesteruk argues for the 'complementary' reversal of our perspective (i.e., from a noematic 'content' of cosmology to its noetic pole which is the inquiring human subjectivity) and focus on the 'spiritual dimension' of cosmology, on the study of the universe from within the experience of our participation and communion with it. If this is done, then: „The universe rather enters human subjectivity as a term of *personal relationship*, as a quality of *harmony* and *beauty*, as an aesthetical (or even

ethical) idea, similar to that of *Cosmos* (Gr. *kosmos*) in ancient Greek philosophy.³⁷⁹

This, at the same time, reflects the ‚right‘ attitude to the origin and the end of our existence in the universe and has the potential to reveal the ultimate sense of our life. Thus, to summarize Nesteruk’s vision – the man and the universe ‚appear‘ as ‚the ultimate created unknowable‘, as the ‚*always greater universe*‘, exceeding the final grasp of our understanding. Moreover, we can also see the universe in God as ‚the context of all contexts‘, the ultimate background of our philosophical, theological and scientific reasoning. Referring back to the earlier claim that science could be viewed as a para-eucharistic work, Nesteruk sees cosmology even as a ‚component‘ of theology, that is, in a sense of an implicit spiritual activity of cosmologists.

This, in turn, allows him to treat cosmology as a ‚task of moral mediation between the universe and God‘. In this case, the universe is being ‚brought back‘ to God the Creator by the scientific activity of exploration and further articulation of the universe not only in the rationalistic mode of thought but potentially also in a mode of *gratitude* and *love* of the universe seen as the God’s creation, which is good.³⁸⁰ Thus, together with Nesteruk we can speak about (*apophatic*) *Cosmology as a coherent worldview* which ‚sees‘ the world of sciences not only as manifestations of human understanding of ‚reality‘, but also

³⁷⁹ Nesteruk, *The Sense of the Universe*, p. 479 (paraphrased and emphasized, RL).

³⁸⁰ *Ibid.*, p. 474 [emphasis, RL].

as outward expression of the ‚mystery‘ of humanity’s ongoing incarnation in the universe, as the ‚*incarnational reality*‘.

At this point we can once again raise some critical questions: The ‚revival‘ of pre-modern thought in Nesteruk’s argumentation (especially his emphasis on the patristic theological anthropology as the key constitutive element of the worldview mentioned above) could be criticized: First of all, there is not an easy way to recover those (patristic) modes of thought to which Nesteruk appeals, but also, the ‚desire‘ and ‚possibility‘ to ‚go back‘ to the ‚golden age‘ of Christendom (i.e., as towards a supposedly ‚unified patristic theology‘) is questionable. Nevertheless, our post-modern culture and its philosophical climate invites us to present our particularly Christian understanding of reality (and/or the particular understanding of the core of Christian message from within different theological traditions). Moreover, as Toulmin reminds us, the search for a new post-modern (or post-foundationalist) worldview/paradigm invites us to explore the new horizons in which the pre-modern ways of reasoning are welcomed.³⁸¹

The growing interest in some of the most influential patristic theologians (e.g., Maximus the Confessor) and the recognized relevance of their thought for our present day interaction of theology and the sciences was already mentioned several times

³⁸¹ Toulmin, *Cosmopolis*, p. 174; Toulmin outlines the ‚trajectories of modernity‘ and concludes: „After 300 years we are back close to our starting point. Natural scientists no longer separate the ‚observer‘ from the ‚world observed‘, as they did in the heyday of the classical physics (...) and Descartes’ foundational ambitions are discredited (...) Current theories of Nature have a hundred thousand roots in experience.“

in our study.³⁸² The value of such a newly presented (*post-modern*, but - in a certain sense and at the same time - also a *pre-modern*) worldview could be seen in its capacity to ‚renew our vision‘, that is, to overcome the ‚transcendent-vision-blindness‘ (Nesteruk’s term) into which we are being plunged since the rise of modernity. Nesteruk criticizes the undue emphasis on the ‚civilizational pole of our existence‘ and sees it as the all-pervasive presence of the strictly scientific reasoning and technology in our culture (and thus in our daily life), which itself should be balanced with a ‚proper dose‘ of the ‚inner life‘ of contemplation.

Together with D. Griffin, M. Heller and many other proponents of the dialogue of theology and science Nesteruk would agree that the problem of the (outward) ‚conflict‘ of science and theology - which is not only theoretical problem, but also cultural, sociological, and above all, personal (when we, as individuals are torn apart by ‚scientific‘ and ‚religious forces‘ and feel to be drawn in the supposedly opposing directions) - can be eventually overcome if we search for and try to explain what is the proper relationship between cosmology and theology.

Questions raised by ‚philosophizing physicists‘ - pertaining to the ‚mystery‘ of our ways of knowledge - have clear theological implications. Thus, if the scientific cosmology is properly appropriated theologically, that is, when the all-comprehensive

³⁸² An interesting discussion about the relevance of Maximus for contemporary science can be found in Thurnberg’s *Man and the Cosmos*, p. 132-137, i.e., the chapter ‚The principles or ideas of creation and natural science today‘.

worldview is drawn – a worldview which is also ,informed by‘ the basic presuppositions of Christian faith – then the ,philosophizing theologians‘ can play a significant role in ,healing‘ of present culture by presenting the fuller understanding of reality. The resulting account of ,theological cosmology‘ can thus play not only apologetic, but also ,pastoral‘ role for individuals and larger societies, precisely because of its new ,spiritual dimension‘, the ,newly‘ discovered ,spirituality of creation‘, that is, simple living in communion with the Spirit of God, the ,giver‘ and ,affirmer‘ of life.

So what is the relevance of cosmology today? It may seem, that theology is only following the scientists (cosmologists) in their popularizing efforts, when they present their visions of reality and when they raise the ,worldview questions‘. Yet, it is not ,popularizing‘ what should primarily catch our attention. It is rather the expression of our effort to be always prepared to give the reason (Gr. *logos*) for the *hope*‘ (1 Peter 3:15), which we have as Christians. It is also the expression of the ,calling‘ of the church and its theology, the expression of the role it could play in the wider society. All of it should be detected as the basic motivation behind the engagement of theology with the world of science, and especially with cosmology (which is occasionally referred to as the ,religion of modern atheists‘).

The ,priestly role of man‘ in creation – advocated by Nesteruk and Moltmann – could be seen as our active ,standing in the gap‘ between science and religion, ,faith and reason‘, with the aim to reach the unity and consonance between them. It is eventually done in the ,service‘ of ,preaching‘ and ,teaching‘ about the

coming Kingdom of God, the ‚service‘ of ‚extending‘ life towards its fullness, as it could be seen through its *ends* and *purposes* (*logoi* of creation). Returning to ‚Cosmology means ‚embodying‘ the ‚fullness of Christ‘ (Col. 1, 19-20) who is the Way, the Truth and the Life (John 14, 6), the expression of our desire for the true life lived in the all-embracing cosmic ‚breadth and depth‘ (Eph. 3, 18-19), in the light of eternity, *coram Deo*.

This brings us to the final point which is the ‚assessment‘ of our discussion in the light of Moltmann’s theology of creation which can be seen, at the same time, as a brief and very limited comment on Nesteruk’s research from the perspective of Protestant theology. To recall some of the main features of Moltmann’s theology it is important to say that his aim was to develop a ‚reformulated‘ natural theology, growing from the eschatologically ‚grounded‘ theology of creation. The result was a strong plea for *panentheistic* understanding of God’s relationship to the universe, his creation, whereas the energies of God’s indwelling Spirit were treated as the starting point for our reflection of God’s activity in the world.

Moltmann’s assertion of ‚God in creation‘ reflects the strong pneumatological emphasis of the whole of his theology: The entire universe is created *through* Christ and *in* the Spirit of God – the world in which we live is the reality formed by God in the Holy Spirit. It also constitutes the strong experiential dimension of Moltmann’s theology which encourages us to ‚discover‘ the activity of the God’s Spirit in nature. Thus, eventually, God’s Spirit as the ‚holistic principle‘ is also the principle of *creativity*, the principle of *individuation* and *intentionality*, which opens all

creations towards their common future.³⁸³ Moltmann also speaks about *kenosis* of the Spirit, as the suffering and yearning of God's Spirit present in all of his creation (Rom. 8, 18-25), longing for self-transcendence, for growing into the full likeness of *imago Dei* in Christ, and thus for immortality and eternity. The language of the Spirit in Moltmann's theology refers to the experience and knowledge of the cosmic dimension of hope of the world.

Thus, as we have seen, the Trinitarian understanding of creation as well as the future orientation of theology are the basic common traits of Nesteruk's and Moltmann's conceptions. From this perspective it is possible to speak about the *sense of human life and the sense of the universe in the light of Resurrection*. The theology of J. Moltmann gives the needed balanced framework for understanding the nature of human calling in creation and the sense of life. For our tracing of the basic convergence of Nesteruk's and Moltmann's theology, but also for the resulting shape of their respective models of interaction of theology and science, the following claim is crucial: „*The mutual relationship between pneumatology and christology must be viewed as a fundamental principle of Christian theology.*“³⁸⁴

Moltmann further specifies another crucial ,complementary' aspect of Christian theology: „Ancient church *incarnation*

³⁸³ Moltmann, *God in Creation*, p. 100.

³⁸⁴ Moltmann, *The Spirit of Life*, p. 72.

theology and the *theology of the cross* of the Reformers complement one another and *form a common theology of resurrection* for the *salvation of humans* and the *salvation of nature*.³⁸⁵ Moltmann refers to the theology of the Protestant Reformers and its specific ‚nature‘ which could be summarized as ‚humanization of inhuman beings‘.³⁸⁶ This is not to be understood as contradiction to the doctrine of theosis; but conversely, it is its presupposition. It should be treated as the starting point of our quest to speak in full and balanced way about the ‚always greater Christ‘ (i.e. the Cosmic Christ of the Church Fathers).

Moltmann stresses theology of the cross and understands Christ’s death as the ontological foundation for cosmic Christology: „It is only the knowledge of the crucified God which gives this vision of the world in God its foundation and endurance.“³⁸⁷ Due to the incarnation of Christ and the embodiment of human beings we can speak about ‚individual‘ redemption experienced in faith as well as the redemption of the whole of the ‚subjected‘ creation, which is waiting in hope for the ‚freedom‘ from the ‚bondage‘ of death. He argues that cosmic Christology is not a mere speculation, but it follows logically from the basic ‚truths‘ of Christology and anthropology.

That is why we need to start with the concepts of Trinitarian *perichoresis* and God’s *kenosis* (on which God’s indwelling in the

³⁸⁵ Bingaman, *All Things New*, (Foreword by Jürgen Moltmann), p. x [emphasis, RL].

³⁸⁶ *Ibid.*

³⁸⁷ Moltmann, *The Spirit of Life*, p. 213.

world is ‚grounded‘)³⁸⁸ reflected in all contexts, be it the account of God’s creation, Incarnation of Christ, his redemptive death and the subsequent hidden presence of the Spirit (i.e., God’s providential suffering Love) in the cosmos, which has also some important implications for our knowledge of God, as we have seen in our discussion pertaining to the Wisdom of God. Moltmann also argues for the cosmic dimension of Christ’s parousia, which should be understood as the hoped for and *‚the final coming forth of the Pantocrator (kefalé hyper panta) hidden in the cosmos, and as the finally accomplished manifestation of the hidden subject nature in a reconciled, redeemed and hence newly created cosmos.‘*³⁸⁹

The *epistemological foundation* of the cosmic Christ, on the other hand, is the Easter experience of resurrection of Jesus Christ. Moltmann argues that the early Christians deduced the initial sending of Christ from the Father from their experience of Christ’s ‚eschatological exaltation‘ to the Father: „According to this deduction, the *future reveals the origin* – Christ’s descent is manifested in his resurrection. The process of incarnation is then merely the reversal of the process of resurrection, since *what is last in perception is first in being.‘*“³⁹⁰

Nevertheless, there are also some differences between Moltmann and Nesteruk: Moltmann argues that the Christology

³⁸⁸ See more in: Moltmann, *Experiences in Theology*, pp. 303-333; Moltmann, *God’s Kenosis in the Creation and Consummation of the World*, pp. 273-285.

³⁸⁹ Moltmann, *The Way of Jesus Christ*, p. 280.

³⁹⁰ *Ibid.*, p. 49 [emphasis, RL].

of the ancient church was too narrow, that it ignored the Christology's prehistory in the Old Testament with the history of promise which was overlooked and did not play any significant role in the Christology of the Church Fathers. The same objection can be raised against the lack of emphasis on the ministry and teaching of Jesus between his birth and his death, which are, according to Moltmann, never mentioned in the Christological dogmas of the ancient church. And finally, the same can be said about Christ's parousia which is overshadowed and simply lost by the risen and exalted Christ as he is already worshipped and invoked as the glorified Pantocrator.

The situation pertaining the respective concepts of the church (in the cosmic perspective) in Moltmann's and Nesteruk's theology and the role of the church in the world is slightly less clear. Moltmann, when using the metaphor of the 'head and body' to describe the church in the cosmic dimension, does not want to claim that one day the whole cosmos will become a church. He rather argues for the opposite perspective - the church should be understood as the beginning of the reconciled cosmos on which God's peace has been bestowed. Thus, in its cosmic dimensions, the church as Christ's body is always already the church of the whole creation: „It is the historical microcosm for the macrocosm which has become God's temple. The true church of Christ is the healing beginning of the healed

creation in the midst of a sick world."³⁹¹ In the case of Nesteruk it seems that he understands the church in more ‚universal‘ terms and that, consequently, there is no clear line of demarcation between the current state of affairs and the new creation which is to come (i.e., the new creation is understood in the context of man’s knowledge and his subsequent ‚new‘ articulation of the universe).³⁹²

For both Nesteruk and Moltmann the role of the Spirit of God in creation is vital, but again we can question the role of ecclesial dimension (concerning the operations of the ‚grace‘ of the Holy Spirit in the world) in both Moltmann’s and Nesteruk’s propositions: „The *Spirit of the resurrection* who acts in Christ, and through him in human beings, is also the Spirit who brings all living creatures into the springtime of eternal life – the *Spirit of creation* and of the *new creation*.“³⁹³ For Nesteruk the role of ecclesial liturgical epiclesis is crucial in order to sustain the continuity of the Spirit’s presence in the life of the world and, by taking this stance, he opposes the ‚competing‘ views stressing the constant presence of the Holy Spirit in history. It means, at

³⁹¹ Ibid., p. 286 (paraphrased).

³⁹² Nesteruk develops his ecclesial vision of the universe along the lines of the theology of Maximus the Confessor, which is, in turn, based on the doctrine of Incarnation. Nesteruk also speaks about an ecclesial function of humanity: „The universe, being mirrored in the church, is held hypostatically by the Logos of God, who is the head of the universe understood as a Church. When we say that the universe inheres in the hypostasis of the Logos of God, we understand this primarily from the perspective of the universe’s creation and its further articulation by human beings.“; Nesteruk, *Man and the Universe in Patristic Thought*, p. 983.

³⁹³ Moltmann, *The Way of Jesus Christ*, p. 253 [emphasis, RL].

the same time, the indispensable role of the church community for ‚securing‘ the truth which is always the truth in the Spirit.³⁹⁴

Here again the reference to the basic Trinitarian framework of their theologies should be made: „The doctrine of the Trinity has a doxological form, since it expresses the experience of God in the apprehension of Christ and in the fellowship of the Spirit (...) Theological talk *about* God stems from doxological talk *to* God and remains talk *before* God“.³⁹⁵ The precise tracing of the various pneumatological and ecclesiological nuances in the approaches of Moltmann and Nesteruk would yield another set of different aspects of their respective theologies. The same can be said about the respective emphases of Nesteruk and Moltmann on the continuity/discontinuity between ‚personal‘ and ‚natural‘ dimension of man. Any subsequent study of Nesteruk’s research from the perspective of Protestant theology needs to deal with those important aspects.

Despite the fact that there are some differing features in their theologies, it is necessary to stress the general convergence of their approaches which opens the future prospects for the further examination of their creative interaction. Stressing the Trinitarian ‚matrix‘ of creation, both Nesteruk and Moltmann try to advocate for truth understood as ‚perichoretic‘ communion. Mindful of the ecumenical interest of both of them we can also

³⁹⁴ Nesteruk, *The Universe as Communion*, p. 114; „[T]heology, and the truth which it proclaims, are inconceivable without the presence of the Spirit of God (...) [W]e know that God is present because we experience His presence in the Spirit: ‘where the Spirit of God is, there is the Church and every grace, but the Spirit is truth.’“

³⁹⁵ Moltmann, *The Spirit of Life*, p. 73.

point out the dialogical nature of truth in the light of which the ,final‘ sense of the dialogue of philosophy, science and theology could be understood. In the light of *kenosis of God*, which is the expression of God’s *self-sacrificial love*, we can see ,the climax of the dialogical exceeding of the non-dialogical circumstances‘.

The ,final‘ sense of the dialogue in our limited ,earthbound space-time‘ is apparently nothing less than the tireless quest for and straightening of the ways towards such a commonly shared future about which we can provisionally know only that the generous wealth of dialogical mutuality is unlimited, as the God himself [in his love, RL] is without limits. The main point of any subsequent dialogue should be concerned with the question of the fundamental feature of Nesteruk’s theology and its dialogue with science, namely, its apophaticism - *the vital perspective of our quest for truth which is turned towards our own presuppositions*.

The questioning which is oriented towards our own presuppositions shows the ,incomplete‘ or ,unready‘ nature of our being (and ,being‘ of all ,sensible things‘). Human beings appear as ‘being on the way‘, as a ,task‘ for themselves, as a ,movement‘ towards the goal. The perspective of apophatic theology stresses the participation of all sensible ,things‘ in the ,realm of the ideal‘, as their participation on the sense of the whole. Thus, invoking the God who is above all concepts (including those of ,being‘ or ,non-being‘) the way is open to fulfill our task which is to search for the sense of our being as well as

the being of the universe, the sense about which it is not possible to say that it ‚is‘ or it ‚is not‘.³⁹⁶

The dialogue of important theologians from various theological traditions with the wide array of scientists can be conceived of as the search for a *synthesis* of knowledge being *on its way to completion*. Or, in Nesteruk’s own words, the dialogue between theology and science appears to be the ever-ongoing accomplishment of humanity, its infinite task.³⁹⁷ Nesteruk’s contribution is a valuable impulse from the Eastern Orthodox theology to examine the vital themes of *personhood* and *communion*, which are often lost or ‚dissolved‘ in the individualistic and overly secularized Western mode of thought. His approach can propel us to inquire about our own ‚roots‘, our presuppositions as well as the needed future perspective. The reminder of the fundamentally existential, personally ‚experiential‘ and ‚mystical‘ (apophatic) nature of Christian theology (or, existential ‚relation‘ to truth) encourages us to examine our own attitude to our theological knowledge and lead us to reflect on our ways of doing theology, especially in our ‚theological‘ interaction with other modes of human knowledge.³⁹⁸

³⁹⁶ See also: Kratochvíl, *Studie o křesťanství a řecké filosofii*, p. 91-92.

³⁹⁷ Nesteruk, *The Universe as Communion*, p. 73.

³⁹⁸ In this context Moltmann stresses the importance of the apophatic dimension of Christian theology: „Trinitarian ways of speaking, singing and thinking grew up in doxological context, and if they are not to lose sight of their divine Opposite, that context must be kept in mind (...) This unique character is preserved when theology expresses the experience of God *apophatically*.“; Moltmann, *The Spirit of Life*, p. 73.

Thus, inspired by Nesteruk's theological vision, we are invited for a careful, personal ,analysis' and ,pursuit' of the apophatic, eschatological dimension of the dialogue, that is, the perspective of the ,realized eschatology' in all interactions of science and theology, which, according to Nesteruk, determine the ,telos of spiritual development of humanity in historical realities and concreteness of space and time'. Viewed this way, the scientific research reveals itself (and could be treated) as a ,mode of manifestation of the overall human spirit.' The ,spiritual' understanding of truth (truth ,attainable' in the Spirit) is necessary in order to detect the presence of the same telos inherent in all sorts of human explanations of the existence in the universe, i.e., only through ,the action of the Holy Spirit upon the whole process of knowledge', as ,the para-eucharistic invocation' pertaining to our *manifest quest* for the *foundations and ends of all things*: „It is in this sense that cosmology loses its sense as an archaeology of the physical universe and acquires more the features of archaeology of the human spirit searching for the ground of its own facticity.“³⁹⁹

The ,humble approach' to the dialogue of philosophy, theology and science - advocated by the most participants of our discussion in this study - which itself is the result of the changed attitude (effectuated by ,metanoia') and consists in the assertion that ,phenomenality of our origin' nor ,the end of all things' will never be ,revealed' to us in the full measure in the

³⁹⁹ Nesteruk, *The Universe as Communion*, p. 41.

present ‚earthbound‘ state of affairs. Nevertheless, as the unending urge present in our quest for truth, our desire to understand the mystery of our existence forms the final horizon towards which we should tirelessly proceed in order to live the full and valuable life crowned with sense. As theologians we should make ongoing efforts to engage in a creative mutual interaction (which at the same times reveals the much needed tension) in order to appropriately address the contemporary world with its philosophies and sciences.

The ongoing effort should also be made to make sure that the emphasis of the Eastern Orthodoxy – that is, the ‚harmony‘ of the universe in the light of the Resurrection - *is complemented* with the ‚scandal of the cross‘, which is ‚uncovering‘ the sinful condition of humanity in the present age, as it is rightly stressed by the Protestant and Catholic traditions. The universal breadth of the Orthodox understanding of God could also be confronted with the critical question formulated by the Old or New Testament scholar pertaining to the ‚proper name‘ of God, who is proclaimed by Orthodoxy. How can his ‚identity‘ be clearly ‚captured‘ to avoid the feeling that this God – presented at times as an ‚all-embracing environment‘ of our thought - ‚has no name‘. How can we find assurance that there is a properly stated ‚content‘ behind the proclaimed („concept‘ of) God?

Despite all of these aspects – the acknowledgement of the sinful condition of humanity (and its consequence for the present cognitive capacities of human knower) and the repeatedly stated assertions about God’s ‚identity‘ as the God of faith, hope and love – we would like to stress once again, from

the perspective of the Protestant theology - the need to enquire about the legitimate ways of ‚capturing‘ God’s ‚identity‘ on the basis of Biblical testimony. As was already mentioned in the context of our exposition of Murphy-Ellis’ synthesis – the concept of God’s *kenosis* corresponds to the identity of God, whom Jesus Christ represents in His ‚otherness‘. In the perspective of *God’s kenosis* the identity of the ‚God of Christian faith‘ as well as the destiny of the whole of humanity can be fully explicated. The final ‚guarantor‘ of the *wholeness* - the search of which was the main issue of our research - is God who has the specific name disclosed by his *kenotic nature* and his *non-coercive ‚relationship to reality‘* – *God of Jesus Christ is the God of the self-sacrificial Love*. This ‚Christian particularity‘ shows, at the same time, that it can rightly lay claims to the ‚universality of application‘ of its message and the universal significance of its ‚core value‘.

The dialogue between the East and the West, that is, between the adherents of its various theological traditions (and their respective interactions with the realm of science) aimed to show that both paradigms - of the Western and Eastern Christianity (and their respective theologies) - are complementary and as such they have potential for mutual enrichment and cross-fertilization as long as none of those paradigms is assigned with ‚absolute‘ value, on the expense of the other. In this respect it is also important to mention, that Moltmann calls for the balanced theology which could be ‚construed‘ if the cataphatic and

apophatic ways of theology and science are taken seriously as the complementary aspects of the ‚one whole‘.⁴⁰⁰

Cosmic theology of both Moltmann and Nesteruk (employing scientific cosmology) also ‚reveals‘ the basic features of the ultimate reality – its *personal*, *kenotic*, and *event-like* character. They both wanted to stress the following fact:

„[I]n its original, biblical form Christianity was a way and moving forward in the discovery of ‚the always greater Christ‘ (...) It is only the cosmic dimension which gives the human, historical experiences of Christ [and of the universe, RL] their all-embracing meaning.“⁴⁰¹

Those aspects can in turn provide the needed hints of how to speak reasonably about God and his creation, that is, how to ‚restore‘ the meaning to the otherwise ‚emptied‘ terms in the present-day secularized world, which, nevertheless, has never stopped searching for the ‚Mystery of being‘.

⁴⁰⁰ Moltmann, *Experiences in Theology*, p. 151-179.

⁴⁰¹ Moltmann, *The Way of Jesus Christ*, p. 275-276.

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