

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

A doctoral thesis in humanities is generally a text that has to show several specific features. It must demonstrate the author's ability to think and write in a clear, methodical and critical way. It must show that the author is an expert in a chosen field of current academic knowledge and contribute to that field of knowledge in an original and significant way. Given these requirements it is clear that it would be easier to choose a neat and narrow topic within one discipline and excel there rather than to take more hazardous interdisciplinary approach that requires not only expertise in more than one field but also the ability to bring these fields together in a new and fresh way. Radek Labaj has chosen the second option. It remains open to interpretation whether this study in what is generally called the dialogue between theology and science can be truly called interdisciplinary in the usual sense of that word, *i.e.* approaching the same topic with the methods of different disciplines – the stress here seems to be more on an interpretation of science as exemplified by the topic of cosmology from the perspective of systematic theology with some help from philosophy. Alternatively it can be said that this work is an enquiry into human condition from all the perspectives mentioned above and therefore the designation "interdisciplinary" fits the bill. Nevertheless it is clear that the chosen field of inquiry is very complex and the author has to be commended for this bold venture.

Of course in the end it is the result that matters and here it can be said at once that the outcome is very good. The thesis offers the reader a wealth of information in a clear and concise manner. Starting from the introduction that outlines the main features of the study the following chapters build on one another cumulatively while the concluding chapter brings the main issues together. The aim of the thesis is stated bit differently in the introductory chapter and the preceding summary. Where the two agree is that this is to examine the chosen anthropological and teleological aspects of scientific cosmology with the special heed to the works of Alexei Nesteruk in an interaction with other thinkers (mainly Nancey Murphy, George Ellis and Jürgen Moltmann among many others). The summary adds that the study could be understood as an attempt for a complex introduction of Alexei Nesteruk's thought to the wider academic community. This is a good choice – while the general reader gets a systematic overview of the issues pertaining to the relations of

science, philosophy and theology around the limit questions posed by scientific cosmology this work is also about how the Eastern Orthodox Trinitarian thinking can illuminate the ongoing (mainly) Western academic dialogue.

The significance and originality of the thesis comes out from the particular way how its complicated issues are dealt with. The need of complementing the scientific knowledge with insights of philosophy and theology in order to provide a new unified and coherent worldview is expressed by different thinkers in somewhat different ways. This thesis brings some of the most important authors together in a creative dialogue that starts with the questions posed by scientific cosmology and eventually ends up in a theological analysis of the human condition within the creation in relation to Trinitarian God.

Starting with the issues of science: it is important to notice the character of discussions about relations between science and theology (not only in this work but also in much of the field) – it is at the outset philosophical. For example when it comes to science, it is more about the principles of science than about actual theories of science. The discussion is about causation ('bottom-up', 'top-down') and teleology; mathematization, quantification and mechanization of nature; different forms of naturalism like methodological naturalism that takes sometimes a form of 'hard naturalism' (sometimes called positivism) but not necessarily; etc. So it is not entirely surprising that although the study is about cosmology the actual cosmological theories of physicists are dealt with only in a very general manner as exemplified in the notions of Big Bang cosmology; the expanding universe; the fine-tuning of the universe and different versions of the anthropic principle; etc. The main interest is always in the philosophical and theological implications of these concepts. A good example is how the question of the end of universe is dealt with in page 161. The author acknowledges that there are various current scientific scenarios about it and goes immediately on with a generalization: "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." The scenarios themselves deserve only a short footnote. Given the character of the study this is entirely appropriate.

However here a minor critical remark is needed: of the main two scenarios mentioned in the footnote, that of the 'Big Freeze' and 'Big Crunch' only the first one is current in astronomy today. 'Big Crunch' has been ruled out due to the calculations of how much mass there is in the universe – evidently not enough – and with the discovery that the universe moves faster today than billion years ago (attributed to the mysterious 'dark energy') there is a new alternative to 'Big Freeze': as the universe expands ever faster, all of gravity's work will be undone and the universe will be

literally shredded to nothingness in a so called 'Big Rip'.¹ This does not affect the argument of the text at all but before publishing the thesis as a book for a general reader in an academic community this footnote should be updated.

Back to the topic: from the very beginning of the work the reader is also made aware that when we think about the 'limit questions' posed by science it not so much about science itself but more about the scientist – the human person who studies the reality where one finds oneself. Just to refer to some themes from the first part of the study – Michael Heller's 'philosophy in science'; Nesteruk's 'apophatic opposition'; David Naugle's 'symbolic universe'; Edmund Husserl's concern with the problematic relationship of *doxa* of our daily life and the *episteme* of the scientific picture of reality; the anthropic principle itself – they are all about anthropology. Anthropology, on the other hand, is about the attitude of the human person (scientist included). There is morality in the universe (Murphy, Ellis); when you are confronted with the inevitability of the end of the universe, you are reminded that we live in the hope and God confronts us from the future (Moltmann); when you study the mysteries of creation, you can feel the humble awe of taking part of the Trinitarian life of God within the creation that is moving towards the deification of cosmos together with yourself (Nesteruk). So, anthropology is about attitudes and attitudes, seen in this way, are the proper substance of theology.

It is very refreshing to see from the viewpoint of theology how the Trinitarian understanding of God (usually a quite obscure topic not only for a great number of ordinary Christians but even for many who study theology in colleges and universities) is here an indispensable and fruitful way of comprehending and addressing the complexities we humans find ourselves in. The use of the Trinitarian dogma by Moltmann with an added introduction of the Eastern Patristic thought to the issues of contemporary cosmology by Nesteruk bridges the ages – the ancient religious quest for wisdom is still relevant in the current age of scientific discovery. Another important feature the current work is the already mentioned theological dialogue between East and West, especially the elegant reminder from East that theology must necessarily have an existential character in order to address the totality of life. It has to be more than simply an academic 'research program' (Murphy, Ellis), it has to be rooted in liturgy and communal life of the Church.

The introduction of Nesteruk's thought that can be found first in dialogues with other thinkers (chapters 1-3), then more comprehensively in chapter 4 and then in the evaluative remarks

¹ See Hubblesite for example: http://hubblesite.org/hubble_discoveries/dark_energy/de-fate_of_the_universe.php. Of course, it could also be argued that the 'Big Freeze' is not entirely out yet, but the point here is that when one uses the word "current" referring to natural sciences it is expected that this word points to the latest consensus in a field that is characterized by changes caused by new discoveries.

of the conclusion is an important contribution to the dialogue. The author remarks rightfully that not everyone can fully agree with Nesteruk – in order to that you have to convert to Orthodoxy – but everybody can see how the reconciliation of science and theology is possible and work out one's own ways. Of course, it's not only the inclusion of Nesteruk into the research; it's the research itself in its fullness that is evaluated here. It is apt to repeat what was said in the beginning – the outcome of the research is very good. The reviewer has no doubts at all that Mr. Labaj deserves the doctoral degree in theology. His thesis contributes to that field theology and science in an original and significant way.

Some additional critical remarks here though, as the text will be undoubtedly published as a monograph. Although the text itself is well written in good English it still needs some additional editing. There are some occasional typos here and here (sure, fighting them is always a never ending nightmare). Secondly the references should be carefully reviewed. Just to give some examples from the beginning of the work: on page 11 Kant's treatise "The End of All Things" is mentioned, you can find it in bibliography but not in footnotes; on page 12 note 3 Ted Peter's book "Anticipating Omega: Science, Faith and our Ultimate Future" is mentioned but it is missing from bibliography. In the end of page 57 there appears to be a quotation but no reference is given and the first section of page 58 the quotation seems to continue but it's not probably a quotation at all. It might be single mistakes (the reviewer didn't bother to check more of them as the problem was already revealed) but it is worth checking all over before giving manuscript to a publisher. What is more problematic is an unorthodox way of giving the quotations that are essential for the thought flow of the text suddenly in the footnotes like footnote 87 on page 76 or footnote 98 on pages 83-84. There is no need for that as the text contains lengthy quotations anyway and it sort of disrupts the logic of footnotes for being there to give additional information and references.

Other than that – I thank Mr. Labaj for his thought provoking work. Reading his thesis was definitely an enriching experience for the reviewer. I have two good colleagues I think of: one is astronomy professor at Tartu Observatory who is also Orthodox and another is Council Member of the European Society for the Study of Science and Theology (ESSSAT). They would both be delighted to read this thesis. It has yet to be decided who gets it first.

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