

The Sense of the Universe

Philosophical Explication of Theological
Cosmology – Modern Cosmology



Alexei V. Nesteruk

Additional Praise for *The Sense of the Universe*

“*The Sense of the Universe* represents the project on phenomenological cosmology. His main stance is that the universe as a whole cannot be an object in the natural attitude of consciousness and is comprehended as a ‘saturated phenomenon,’ a concept developed by contemporary French philosopher Jean-Luc Marion. This concept allows one to respond to the question on the sense and origin of the universe not in terms of an objective foundation that could be discovered by theoretical thinking but rather to treat the universe as the ultimate existential background of this thinking. Correspondingly, the universe cannot be considered anymore as a phenomenon without human beings articulating it. Such an approach to cosmology opens a new avenue to its dialogue with theology by relating the articulation of the world with experience of the Divine in the one and same human subject.”

Ruslan Loshakov

Luleå University of Technology

“*The Sense of the Universe* by Alexei Nesteruk is a deep and well-structured book about science and theology that focuses in particular on a study on the philosophical foundations of cosmology. Nesteruk’s central tenet is that a phenomenological analysis of the foundations of physics reveals that in doing physics we also reveal the nature of our humanity. He sets out, in convincing detail, that such analysis of cosmology in particular can reveal the hidden psychological and

spiritual aspirations that guide the study of the world. Nesteruk interprets ideas concerning the universe as a whole, and its origin, existentially as reflecting the basic anxieties of human existence in the vast cosmos. In this view, the study of cosmological is interpreted as an inevitable part of the teleology pertaining to all human acts. The universe as a whole, which is the inexhaustible context of the living experience, is then seen as 'the infinite created unknowable' which, from an epistemological point of view, is similar to that of the Divine. Nesteruk unfolds, through the analysis of ideas of the universe, a hidden theological commitment in cosmology related to the metaphysical and theological mystery of the human existence."

Chris Dewdney

University of Portsmouth

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Alexei V. Nesteruk

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Preface

This book, in a way, represents a further extension of some ideas on the dialogue between science and theology that were formulated in my previous books *Light from the East* and *The Universe as Communion*. My position on the general approach to the dialogue between theology and science has experienced a considerable transformation toward an understanding that theology and science cannot enter this dialogue on the same footing, that is, on equal terms. Orthodox Christianity treats theology as experience, related specifically to communion of human persons with God while being in the physical universe. In fact, life *is* communion, so that all other activities (including a scientific one) originate in this communion. In this sense, to establish the dialogue between theology and science means to appropriate science theologically, that is, experientially or existentially. The symmetry between theology and science is not sustainable simply because existence, that is, life as a center of disclosure and manifestation, precedes its explication through science. This asymmetry reveals itself in the dialogue as a certain (*a priori*) theological commitment. Theological commitment means an intentional approach to science through “the eyes of (existential) faith.” Being a commitment, it entails a method: namely a

phenomenological explication of those premises in the coherence between human rationality and the rationality of the cosmos that make cosmology possible at all. The aim and the final result of such an analysis is the creation of a solid ground for understanding the sense of cosmology's "dialogue" with theology. This book deals with three principal aspects of explication of the theological commitment in cosmology: 1) the reinstatement of personhood to its central place in the dialogue between theology and cosmology as being a center of disclosure and manifestation in both theology and cosmology; 2) the elucidation of the sense of retaining transcendence while conducting research within the rubrics of intentional immanence, which ultimately elucidates the sense of humanity as not being circumscribed by the necessities of the universe, but carrying in itself the Divine image; and thus 3) the elucidation of cosmology as activity explicating the history of salvation and thus contributing to faith in God.

There are many colleagues and friends who through discussions and indirect support contributed toward the writing of this book. Among many, I would like to express my feelings of gratitude to my sons Dmitri and Mark, as well as my wife Zhanna, for existential support and encouragement. My sister Nina was very helpful in obtaining necessary Russian books while I was outside Russia: my deep gratitude to her. George Horton deserves special thanks as a first reader of the book, contributing a lot to its style and ultimate shape. Among others, my thanks for fruitful conversations and discussions go to Christopher Dewdney, David Matravers, Roy Maartens, David Bacon, David Coule, Joel Matthews, John Bowker, Niels Gregersen, Adrian Lemeni, Michael McCabe, Mogens Wegener, Alfred Osborne, Argyrios Nicolaides, Rev. Christopher Knight, Andrei Pavlenko, Grigory Benevich, Grigory Goutner, Dmitri Biryukov, Marina Vasina, Aleksandr Shevchenko, Alexandr Soldatov, Natalia

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publications as well as in this book are those of the author and do not reflect the views of the JTF.

Introduction: Thinking of The Universe and Theological Commitment

If a human person craves immortality, he must, in his individual and collective life realize the mode of the truly existent, the logic of relations found in cosmic harmony.

*—Yannaras, *The Meaning of Reality*, p. 133*

The Universe and the Mystery of Human Existence

This book is not about cosmology as physical research and it is not concerned with the popular interpretations of fashionable cosmological theories. Nor is it about *meta*-cosmology, that is, a metaphysical extension of cosmology, which lags behind cosmological theories and ideas in order to use them as a testing ground for known philosophical ideas. This book is on the sense of modern cosmological ideas as they originate in the being of humanity and the way that ideas about the universe are related to the philosophical and theological mystery of the human condition in the universe. Thus this book positions itself in the field of religion and science or, more precisely, Christian theology and cosmology.

It does not, however, aim to compare contemporary cosmological theories and observations with the ideas of the world in different philosophical or theological systems. We believe that it would be incongruous to bring into correlation the cosmological views of the Fathers of the Early Christian Church (which historically had been rooted in ancient Greek philosophy and astronomy) with the experimental and theoretical results of modern cosmology. Similar to this, it seems doubtful to conduct a comparative hermeneutics of the scriptural texts with modern writings on cosmology in an attempt to reveal some linguistic parallels: such a comparison would exhibit an arbitrary approach that is dictated neither by the needs of theology nor the logic of science.

Instead, the argument starts from the premise that there is a fundamental asymmetry between cosmology, as a definite form of activity and thinking, and that philosophico-theological consciousness which exercises its reflection upon cosmology. This asymmetry consists in a simple fact that although philosophical and theological motives enter implicitly any speculations on the universe, cosmology as a scientific discipline cannot explicate these motives. The motives we imply here enter our discussion as a certain attitude of consciousness that is determined by an ambivalent position of humanity in the universe, that is, on the one hand, being included in or contained by the universe, and, on the other hand, containing the universe as a representation and articulated reality within consciousness.

The implicitly present philosophy is not a “neutral” form of thought, but is imbued with existential meaning that has theological connotations, in the sense that any philosophical reflection as well as scientific theories are “inserted” (bracketed) in the experience of existence, that is, the experience of communion with God. In other words, the aim of this book is to conduct the philosophical analysis

of those logical operations of the human mind in research of the universe from within a hidden philosophico-theological “obviousness” that is essential to all acts of consciousness, including scientific ones. From this obviousness cosmology is explicated by us as a certain way of interrogating the reality of the world as well as that of human beings themselves.

Such a philosophically and theologically “enlightened” treatment of cosmology, despite its sheer deviation from mainstream science, is in our opinion very timely because it elucidates not only an existential sense of what cosmologists are speaking of the universe, but also the sense of what they are speaking of themselves, that is, of human beings incarnate in this universe and capable of speculating about it. Thus the main interest of this book is not so much in the sense of physical realities that cosmology attempts to constitute, but in the ways this constitution originates in those anthropological and psychological aspects of humanity’s existence that express basic anxieties of existence and represent a theological mystery. Our interest is not in describing that which is in the universe as if this description would be self-evident and not needing any further analysis, but in investigating how this very description became possible. This is a philosophical objective, but one that cannot be fulfilled without recourse to theology.

Correspondingly, the search for the ultimate foundations of cosmological knowledge cannot avoid a certain “theological commitment” related to the stance on the nature and essence of the knowing subject.¹ At the same time, the enquiry into those original

1. Jean Ladrière expressed a thought that in order to explicate the analogy between the deep structure of nature and the structure of human existence as openness, creativity, possibility, etc., one needs to enter what he called the “domain of the word,” which, in our parlance, would correspond to thought within the “theological commitment”: “The problematic of nature can thus be linked with the problematic of human existence. Still, there is no continuity between these two domains. There are perhaps indications pointing in a certain direction, but it is not within the power of cosmological thought, even when developed, to become a consideration

conditions in the study of the universe without which this study would not be possible explicates this hidden theological commitment.

The analysis of the conditions of knowledge is called in philosophy “transcendental.” This analysis deals with two fundamental issues: 1) the intrinsic interlink between human consciousness and the possibility of sensing, judging, and reasoning about the universe; in short: the universe can be presented in thought and knowledge only as constituted within certain transcendental delimiters related to the structures of embodied subjectivity; 2) it is because of the physical and epistemological incommensurability between the universe and human beings, that the universe always remains a *transcendent* background of any *transcendental* knowledge. The “relationship” between the universe and human beings is established on the principles of freedom, that is, free-thinking (related to what Kant called the faculty of reflective judgment, and theologians call the free will of humanity made in the Divine image). This freedom implies that the universe and humanity interact in ways that reflect their mutual constitution: the universe is a never-accomplished mental creation, whereas human subjectivity is the self-correcting structural unity of apperception, the unity of which originates in the thought (intuition and imagination) of the infinity of the universe.

The theological upshot in this transcendental analysis is that humanity remains free and responsible in its thinking of the universe, because this thinking implies free action, free judgment, and choice of theoretical options, which is not subordinated either to the rigidity of the structures of subjectivity, or to the material content of the universe. A theological stance is the possibility of transcendence in cognitive actions, the transcendence either as longing for the

of finality, to enter the domain of the word. Only by meditation on what properly belongs to the word can one open another way of understanding (if one exists), leading towards . . . faith.” J. Ladrière, *Language and Belief* (Dublin: Gill & Macmillan, 1972), 186.

incommensurable content of the universe, or as a resistance to any forms of thought that position humanity as part of the cosmic determinism, denying its ability to avoid the dissolution and crush by the mounting number of facts about the universe.² Finally, a theological stance in the transcendental analysis of cosmology is the commitment to the view that the very facticity (that is the very possibility and actual fact of existence) of the subject of transcendental knowledge, that is, a human person, originates in and through communion with the divine, as the giver of life and provider of its image.

The study of cosmology through the prism of the philosophically and theologically shaped mind is not in tune with the modern way of treating the real in terms of scientifically representable matter. In this sense such a study is untimely, that is, out of tune with the present, in the same way as philosophy, which deals with the phenomena (in our case the universe) that cannot encounter any immediate response from wider humanity, is untimely. Thus philosophical enquiry in cosmology imbued with a theological commitment reveals itself in an autonomous existence such that it makes things more difficult and complicated. However, here lies the advantage of a philosophical interrogation of cosmology as an autonomously functioning consciousness above and beyond that mass-consciousness which functions in the natural attitude. Skeptics and nihilists, whose

2. This is a different way of expressing that which Gabriel Marcel asserted in 1940 in his book *Du Refus à l'Invocation* (Paris: Gallimard, 1940), when he discussed a paradox related to the representation of the universe as an object: "The more I insist on the objectivity of things, thus cutting off the umbilical cord which binds them to my existence, that one which I call my organo-physical presence to myself, the more I affirm the independence of the world from me, its radical indifference to my destiny, my goals; the more the world thus proclaimed as the only real one, is converted into an illusory spectacle, a great documentary film offered for my curiosity, but which is ultimately abolished because of a simple fact that it ignores me. I mean that the universe tends to be annihilated in the measure that it overwhelms me. And this, I believe, is that which is forgotten whenever one attempts to crush man under the weight of astronomical facts" (32).

presence among intellectuals bears a sign of our times, can raise a disarming question as to whether it is worth doing at all: “What for to study the foundations of the universe?,” or, correspondingly, “What for to understand the sense of humanity?”

The response to these questions comes from the definition of philosophy as *love for wisdom* (*philo-sophia*) and *truth* (*aletheia*), which implies *love* in general as a major characteristic of the human condition understood theologically. To enquire into the sense of the universe means not only to know it, but to be in communion with it, to love it. Philosophically and theologically oriented cosmology is not “knowledge” achievable and ready to use. Rather, philosophical cosmology belongs to the realm of those perennial aspects of the human quest for the sense of being that can be addressed only in the rubrics of the so-called *negative certitude*³ pertaining to the long-lived traditional theology which does not provide us with a definite discursive judgment on the existence of God and what God is; this question drives the human reason only to one possible answer: it is *certain*, but this certainty is *negative*, so that one cannot answer this question in rubrics of reason alone. In similarity with theology when cosmology dares to predicate the “universe as a whole,” or “multiverse” (the plurality of the worlds), the outcome of this predication does not resolve the present scientific uncertainty about their actual existence, rather it brings us back to the same “negative

3. *Positive incertitude* is typical for the sciences dealing with knowledge of objects, which can be described as science that operates with some precarious and incomplete data about these objects, which are amended and corrected in the course of science’s progress. The paradox of science is exactly in that this uncertainty and corrigibility of its results is the condition for science to function at all. Another aspect of science is that it cannot know things in the context of the wholeness of the world. By contrast in philosophy, in what concerns its perennial questions about the world as a whole, there is no visible progress, so that it is able to speculate about the world only in rubrics of what are called by Jean-Luc Marion *negative certitudes*. See details of this concept in J.-L. Marion, *Certitudes négatives* (Paris: Bernard Grasset, 2010).

certitude” in which no answer to the question of “What?,” “Why?” and so forth related to the universe as a whole is possible.

Correspondingly, a philosophical enquiry into cosmology within a theological commitment cannot be judged on the grounds of simplified scientific or commonsense criteria. Philosophical cosmology within a theological commitment characteristically contributes to the understanding and formation of humanity through its interaction with the universe. It represents cosmology as a general strategy of acquisition of the world, a strategy that as such manifests the ongoing incarnation of humanity in the universe, or in rather theological terms, the “humanization” of the cosmos. In this sense, philosophical cosmology within a theological commitment is directly related to philosophical anthropology as well as to the discourse of personhood. Both of them are concerned with the ancient question raised in Greek philosophy, “Why is there existence rather than nothing?” Contemporary physical cosmology attempts to respond to this question; however, its forms of thought remain intrinsically unadjusted to this type of interrogation. Said differently, cosmology is content with what it says in physical terms and what one says about it as it exists.

However, to understand the sense of cosmology one needs to establish a new type of “questioning of cosmology” in which thinking evolves beyond what was stated by cosmology itself. Here one needs an “enlightened” reason, or, as it was expressed by Nietzsche, a “great reason” that, on the one hand, is associated with the embodiment in flesh of the universe and would represent cosmology as a specific way of appropriation of the world. On the other hand this “great reason” is related to the Divine image in humanity, which humanity attempts to restore and fulfill, thus making the process of the humanization of the universe its communion with the Divine. In this sense any philosophical

cosmology confesses a free type of thinking not constrained by the findings of the scientific and thus transcendent of physical cosmology by bringing it to the next circle of understanding the essence of being and humanity. The issue is not to think of the essence of cosmology, which would be equivalent to being restricted to its contemporary forms, regardless as to whether we judge it positively or negatively. It is important to realize that by questioning cosmology philosophically and theologically we overcome its seeming neutrality with respect to us, thus advancing our understanding of the very being of cosmology as being in us. Cosmology acts in producing its theories, but it does not think in a philosophical sense (compare with Heidegger's famous assertion that science does not think). The sense of cosmology can become enlightened only when the gulf between its particular theories and human thinking in general is realized.

To establish the sense of cosmology starting from cosmology itself, this cosmology must evolve in a radically reflective or transcendental mode, that is, in fact, to become philosophy. The sense of its theories can be grasped only within a critique originating in experience. This is the realm of transcendental self-experience that can be established through a method of phenomenological reduction. Such reduction aims to overcome a "natural naïveté," that is, a belief that cosmology deals with the things of the outer world. Its ultimate objective could be seen as questioning the neutrality of cosmological propositions (their invariance) with respect to specific historically contingent events of knowing. To remove the elements in this contingency would imply the return to those irreducible certainties that would represent the universe as pertaining to the essence of one's conscious life. It is from this life, with its mundane experiences, that the universe is constituted. Life is understood here not anymore as an empirical psycho-physiological life that belongs to the universe, but as the transcendental self-apprehension that comes forth and from

within which the universe emerges as its intentional correlate. By inverting this last proposition, one can assert that it is through cosmology that transcendental subjectivity is revealed as overcoming its own incarnate boundaries. Indeed, by stripping off the layers of the physical and biological, one comes to discover that the universe as a whole appears as an intentional correlate of transcendental consciousness. Thus “putting out of play” the contingent aspects of the universe brings cosmology to a discourse of the transcendental subject, as that center of disclosure and manifestation of the universe through which the latter acquires its own “voice.”⁴

However, even this transcendental reduction does not guarantee that we do not fall into a “transcendental naïveté.” Such naïveté amounts to thinking that reality presupposes the transcendental subject as that pre-given context-horizon within which reality unfolds. But this transcendental subject still functions as an embodied creature, that is, in the world of physical things. However, the very physical things exist for this subject only as constituted by the thinking subject. With regard to the universe as a whole the situation is different: its alleged totality cannot be constituted by the subject but, vice versa, the subject itself is being constituted by the universe (not in a trivial physical sense).

In order to clarify this thought one must remind the reader that cosmology, as a historically concrete science, is capable of making its claims on the structure and evolution of the universe within the limits of what can be called “positive incertitude,” that is, that certainty which is local in time and is subject to amendment and falsification. This can be expressed as those scientific conceptual signifiers that never exhaust the content of that which is supposed to be signified.

4. Cf. T. Torrance, *The Grammar of Theology: Consonance between Theology and Science* (Edinburgh: T. & T. Clark, 2001), 2. See also O. Clément, *Le Christ, Terre des vivants. Essais théologiques*, *Spiritualité Orientale* n. 17 (Bégrolles-en-Mauges: Abbaye de Bellefontaine, 1976), 102-3.

“Positive incertitude” in science can also be described in terms of so-called *apophaticism* (well known in patristic theology), asserting a simple truth that the appearances of things and constitutions by the finite consciousness deal with a particular, incomplete phenomenality that pertains to objects. With regard to things beyond simple perception and nominations that exceed the capacity of constitution and phenomenality, one can conjecture only in terms of aberrations and approximations. The fact that we can see and speculate about some aspects of the universe does not entail that there are no other aspects of existence than those that are present and perceived by us, but whose presence cannot be affirmed in terms of consciousness and knowledge.

A simple *physical* example of such a hidden aspect of the universe is its dark matter and dark energy, which according to theory constitute 96 percent of the overall matter of the universe. However, the phenomenality of these theoretical constructs is poor: physics does not know what particular particles and fields stand behind these constructs. A *philosophical* example of concealment related to the universe as a whole can be taken as its own contingent facticity, the sense of which cannot probably be disclosed to humanity at all. Indeed, the notion of the universe as a whole, which is claimed to be a subject matter of cosmology, allows one only to have some precarious and incomplete definitions related to the fundamental finitude (spatial, temporal, historical, etc.) of the subject of knowledge.

However, this “positive incertitude” of cosmology does not mean that from a philosophical point of view one must disdain cosmology as irrelevant to any perennial questions. It just implies that the cosmological research has to proceed along the lines of the scientific method in clear understanding that the universe as a whole will never be constituted at all. Then the persistence of cosmology exhibits the

courage and heroism of scientists in following their quest for the universe despite the ultimate futility of any hope to have this universe as an object of science. The same takes place in theology when believers explicate their experience of God as an open-ended process in a clear consciousness that the true names of the Divine are beyond this age and any denominations. Correspondingly, in cosmology the persistence of research as a purposive activity of humanity is pointing toward its *telos*, that is, the *telos* of research, which as such is also beyond this age and any denominations. Here is a fundamental paradox of cosmology, as well as any other science, namely, that its incertitude is that condition of its progress consisting in the unceasing correction and amendment of its results and theories. However, in spite of the fact that a human person cannot constitute the universe, so that the universe saturates its intuition and blocks the reason, this person remains an independent center of disclosure and manifestation of the universe, resisting any attempt to be crushed by the grandeur of being. In this sense the “negative certitude” in relation to knowledge of the universe turns out to be a constructive certitude of constituting the human subject.

By interacting with the infinity of the universe human persons form themselves: in the measure that humanity is incapable of constituting the universe as a whole, the human person is constituted by the universe as an “object” of humanity’s constant interest and anxiety of its own position in it. This means that the transcendental subject that appropriates the universe into the sphere of its own subjectivity, and is destined to carry out the phenomenological reduction with the goal of revealing the immanent belonging of the universe to consciousness of the subject, is the forming and changing subject who is formed and changed through this very appropriation. One can summarize by saying that the understanding of the sense of cosmology implies the understanding of the formation of the self-

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