# Section Four COSMOLOGY IN PERSONS

## The Problem of Forms of Completing the Copernicus Revolution in Modern Cartesian Science

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Due to the opinion that philosophy of the Modern Age might be considered as uncompleted Copernicus revolution, the purpose of this paper is to outline the main points of manifestation of anthropology in early Descartes' writings. Emphasizing the ambivalence of the basic intention of early Descartes' writings, authors are focused on the forms of overcoming the naive impact of the scientific revolution and related ways to make anthropology relevant. It is argued that Copernicus' inquiries persuaded Descartes to conceive his anthropological studies. It was discovered that the first form of actualization of human nature for Descartes was the problem of the proper principles of human existence. The text of "Rules for the Direction of the Mind" proclaims the tendency of self-development, which can be implemented firstly, by focusing on individual features of the human nature. Secondly, since the peculiarity of the Cartesian interpretation of human nature is emphasizing of combination of mind and will in it, Descartes is trying to improve the human nature using will and habits. Observation of the uncompleted Copernicus revolution allows outlining some following points. Firstly, the significance of anthropology in his draft of the system of knowledge; secondly, the ethical orientation of his inquiries; thirdly, the expediency of reconsideration of the established technomorphic interpretations.

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Rene Descartes is one of those key personalities in the history of philosophy, whose philosophical heritage contributes to a more fundamental understanding of presence. Present crisis of ideals and values of technogenic civilization make Cartesian texts more relevant because they can assist in the disclosure of mankind's essential potential forces, what is highly important today.

In the present Cartesian studies, two main opinions on the Rene Descartes philosophical heritage could be traced. The first opinion represents Descartes as a pioneer of the scientific and technological revolution and the founder of a rationalistic way of thinking. In frames of this opinion, Descartes appears as the methodologist of science, who extrapolated the methodology of the natural sciences to all other fields of knowledge due to his general technocratic research strategy. The second opinion insists on the significance of the anthropological interpretation of Descartes philosophical project and does this interpretation on his metaphysics, epistemology, ethics, and other related fields of philosophy. This position is now far away from being theoretically completed because it mostly appears not more than as episodic, fragmentary researchers' interpretative tendency. Interpretation of Descartes philosophical project as anthropologically targeted reveals the new perspectives for revision of revolutionary changes in the Modern philosophy and critical reconsideration of the basic anthropologic values of scientific and technological progress.

The present revision of the Cartesian heritage is provided on the principles of distancing from the past naive reception of his texts as strictly epistemological and non-anthropological. The main condition of deconstruction of mentioned reception is to focus on the contemporary interpretations of Cartesian research ambitions as unfinished Copernicus' revolution. In other words, the reason why the anthropological project of Descartes is under the reconsideration now is a high attention that is paid to the cosmological revolution of Nikolai Copernicus, which deprived the Earth and man of the status of a key place in the Universe and emphasized the appropriateness of the reception of space as a set of astronomical objects. Copernicus approach contains threatening implications for theology, which put the eternal philosophical questions on new discussion and actualized the problem of the anthropology status.

The key issue of Descartes' philosophy, which has been based on the incomplete ideological and epistemological "Copernicus turn", appears as the question of the presence and representation of anthropological interest in the early texts of the founder of the Modern European rationalism. In this case, the famous Descartes' dreams of 1619 have to be reconsidered. Their determinative influence on his way of reasoning has repeatedly been emphasized in the numerous research papers. Assessing the significance of these three dreams, Australian scientist Stephen Gaukroger highlights that they represent an important "turning point in his life" [Gaukroger, 1995: 106, 152]. The appeal to the modern history of philosophy does not seem to clarify the mentioned transformation. Generally, it is obvious that this is a matter of the Cartesian way of reception and interpretation of the scientific revolution itself. This way is specified as a statement of the priority of natural sciences

influence on the way of his worldview formation. Such approach is widespread in the history of philosophy what is proved by scholars' uncertainty about the sense meaning of "miracle discovery" of 1619. Gaukroger mentioned that "There are a lot of undiscovered points and even Descartes' progressing during 1620-s still remains mysterious." He, like most scholars, is tended to consider the determinative role of mathematics. At the same time, he emphasizes a mysteriousness of the thinker's position for the present that is related to the fateful nature of the famous dreams and the necessity to make an explicit choice. This emphasis is evidenced, firstly, by the questioning on the proper principles of human existence ("what road in life shall I follow?") and, secondly, by the emphasizing of the necessity of making a choice by focusing on the importance of the key concepts, "it is and is not" [Gaukroger, 1995: 107].

In this paper, as well as in a number of others, the anthropological aspect of the Cartesian philosophy is mentioned fragmentary, which is caused by the naive reception of the scientific revolution. Therefore, the value of those studies of early texts, whose authors go beyond the specified limits, grows. Among the fundamental Cartesian studies, particular attention should be paid to the contribution of Jean-Luc Marion [Marion, 1999], who is well known modern professional in Descartes philosophy.

The researcher is focused on the "Vulgate" of Descartes" pure rationalism, and therefore he is against the interpretation of dreams as forms of manifestation of an immature form of rationalism and giving them an independent theoretical status. The scholar rightly states that general opinion about Descartes anthropocentrism, which appears in the form of the hypostasis of the autonomy of thought, deserves particular attention and deconstruction. Outlining the basic principles of his own methodology, Marion distances himself from the only true interpretation of Descartes senses and values, which could be defined on an interpretation of his dreams (as it took place in psychoanalysis by Freud and Jung). He states that the primary task is to clarify the actual philosophical interpretation of dreams. Analyzing the flaws of the naive reception and ways of their overcome, which could be found in established research approaches, the scholar takes into consideration the peculiar trait of the Descartes doctrine, which represents itself as a continuous apply to the symbol of a mask, as emphasizing the secrecy and loneliness of a thinker's lifestyle.

Another flaw of the established methodology, which is being criticized by the scholar for being a serious obstacle on the way to authentic Cartesius is superficial stereotypes to assess the Descartes' position as dehumanized. Doing his own interpretation of the Descartes position, Marion rejects the temptation of the "Vulgate" of anthropocentrism (because there is an affectation in the basis of consciousness) as well as other two opposite temptations, which are connected a) with the reduction of human consciousness to the lower layers of the psyche (psychoanalysis), and b) with the interpretation of consciousness as manifestations of divinity, where dreams are the manifestation of divine revelation (Thomas. Aquinas).

Analyzing Descartes' intention to develop anthropology, Marion unambiguously emphasizes the key role of the phenomenon of man in Descartes' texts: "The only protagonists are Descartes himself and "a man", also called "a person." [Marion, 1999: 7] This implies the legitimacy of the use of the concept of anthropocentrism in its positive, constructive meaning, which is completely different from commonly known. This statement is evidenced by a close reading of Descartes' texts.

The scholar states that Descartes' self-concentration appears to be sufficient reason for interpreting the further course of his thought as a "figure of self-interpretation." This point is noted in the title of the second paragraph. Analyzing the question of what is the "Self", on which Cartesian philosophy is based. Marion emphasizes the expediency of a fundamentally different (wider) vision of Cartesius position. The matter concerns qualifying Descartes' position as a rationalistic, in which the rationality of human being is reduced to the thinking. Explaining each of mentioned points, Marion consistently focuses on the specificity of the Cartesian understanding of thinking as a mentioned "foundation." Firstly, he appeals to affectivity as an attributive trait of consciousness, and therefore "cogitatio" in his opinion means "all that consciousness experiences." Such position allows interpreting Descartes' position of 1619 as "awakening of cogitatio." As for the nature of the "foundation of miraculous science", it seems to be radically different from thinking, what is proved by appeal to the Private thoughts: "The Lord has made three marvels: something out of nothing; free will; and God as Man." Therefore, it is proposed to consider the free will as the foundation. Predicting possible arguments and objections, Marion emphasizes that such interpretation does not contain any logical or substantial fallacies, because Descartes' position is not reducible to the "Vulgate" of pure rationalism.

One of the most powerful arguments against considering Descartes as a rationalist is a modern scholar's interpretation of substantial originality of Cartesian rationalism. The matter concerns the key points of human nature which appear axiomatic for Descartes (that is the reason why he never mentions or accents them). The validity of the proposed explication is obvious to any attentive reader of the Descartes texts: "Autonomy of the cogitated evidence and divine warranty through the will: Descartes would never again question this duality — or, perhaps, dichotomy." [Marion, 1999: 19] Mentioned points are invariant for Descartes in all of his further work, what becomes more obvious while observation of the late texts.

"Rules for the Direction of the Mind" — one of those Descartes' texts, which were written soon after the famous dreams appeared. Dreams were written between 1619 and 1625 and were never completed. The scholars have a common opinion that "Rules for the Direction of the Mind" heralded the radical turn in thinker's convictions. The matter concerns the man's getting beyond the boundaries of established traditions, which means the impossibility of their subsequent uncritical reproduction. The main factor of mentioned changes was the radical shift of the human position in the Universe, which was initiated by Copernicus. One of the most important transformations, caused by mentioned shift, is the priority of the individual and personal dimensions of human existence. Such new condition persuades individuals to seek their own answers to the common worldview questions.

Until recently, the dominant interpretations of the basic vector of early Descartes' philosophical inquiries were propounded by authors, which gave the priority to the methodological problems of natural science. For thus authors mentioned approach appeared as axiomatic since it correlated with the scientific revolution and was based on the extrapolation of the mathematics methodology. In Kraye's article "Conceptions of moral philosophy" author emphasizes the intention of the New Age philosophers to follow the Euclidean method and to extend its constructive application beyond the boundaries of mathematics. The title of the paragraph, in which the author outlines the vision of the main points of Descartes' position, representatively named — "From the traditional to the geometric concept of moral philosophy." [Kraye, 1998: 1300-1308] We want to highlight that the common opinion of scholarly writings favors the reductionist approach, which represents itself by focusing on the Mind (as the single element of human nature) and full omitting of Will. (The essential role of the concept of "Will" will be explained later by referring to the text of "Rules for the Direction of the Mind") It is quite representative that such simplification dominates in the text of an unfinished doctoral dissertation by Nathan Douglas Smith "The origins of Descartes' concept of mind in the "Regulae ad directionem ingenii" written in 2010. Considering

the sources and key factors, which influenced the appearance of Descartes' "Rules for the Direction of the Mind", Smith pays necessary attention to Cartesius intellectual crisis of 1619-1620 years. However, despite stressing the importance of the third dream (related to the problem of the proper principles of human nature ("what road in life shall I follow?"), he underestimates the significance of an anthropological project [Smith, 2010: 42-43]. The thoroughness of this inquiry is evidenced in by the researcher's attentiveness to the relativity of the topics in the "Rules for the Direction of the Mind" with a problem of the World and Man [Smith, 2010: 108-113].

Analyzing the peculiarity of the present level of science development, it becomes obvious, that professionals in Descartes' philosophy warn us against the temptation to move in line with the established tradition and to reduce the ideological richness of the text of the "Rules for the Direction of the Mind" to the simple reception of the scientific revolution, which means a synthesis of achieved scientific results. In other words, illusions about transparency and simplicity of Descartes' way of thinking are being substituted by the admission of their hidden and mysterious character for us: "There are, in fact, a number of grey areas in this period, and even Descartes' movements (of the thought — M. A.) during 1620 are something of a mystery" [Gaukroger, 1995: 126]. Quite similar evaluation of the Descartes' creative period of the 1625-1628 could be found in the papers by Clarke, who emphasizes, that during this period Descartes launches a large number of projects which remained uncompleted [Clarke, 2006: 81].

Gaukroger's statement about the ambivalence of the Descartes' position during the "Rules for the Direction of the Mind" composition appears as an indirect evidence of the reductionist approach narrowness. Gaukroger contends that Descartes had a plan for universalization of mathematics. This plan he was not able to complete. This failure caused a disappointment in mathematics and general descend of his enthusiasm [Gaukroger, 1995: 180-181]. The opposite opinion is associated with comprehension of anthropological dimension of Descartes' heritage since the main intention of the "Rules for the Direction of the Mind" is considered to be a self-education, which requires a self-conviction: "the central task, he writes, is to convince you."

The reductionist approach is now in descent because much more attention is dedicated to the anthropological intention of Descartes philosophical heritage. Particularly important to us is the correlation of the discussed points with the context of the Copernicus unfinished revolution. Ernst Cassirer was one of the first scholars, who outlined its existence in the early 20<sup>th</sup> century [Cassirer, 1988]. Cassirer asserts that one of the essential traits of the mentioned revolution is the requisition of compliance with the scientific spirit. That is why the only reliable scientific basis of new anthropology seems to be the new cosmology, i.e., the heliocentric system by Copernicus. A quite similar approach is developed by Clarke today, who emphasizes the significance of the individualistic and personal aspects. Clarke writes: "Descartes was already aware of the fundamental challenge to the traditional picture of the Universe that was implicit in the work of Copernicus. On the Revolutions (1543) was not just a new technical theory for astronomers. It was an emphatic displacement of man from the center of creation and his relocation, on one tiny planet in space, as a much less significant creature than a literal reading of the book of Genesis had suggested to generations of Christians" [Clarke, 2006: 69].

The fact of the ambivalence in Descartes' philosophical inquiries, which manifests itself in the text of the "Rules for the Direction of the Mind", is in the focus of attention of Marion, whose texts were quoted above. He pinpoints the profound difference between

the space for thought, "in which the "Mathesis Universalis" dominates, and "the second principle of Descartes' thought" [Homa, 2014: 342], which never moved into the backstage. The scholar is convinced that this ambivalence goes beyond the boundaries of a particular work of Descartes and relates to his heritage in general. Referring to the text of "Discourse on Method" scholar particularly stresses the anthropological character of the basic intention: "Thus interpreted, generosity might for the first time make it possible to overcome the separation, so often lamented, between the theoretical work and the "morale par provision" which in 1637 unbalanced the Cartesian enterprise" [Marion, 1999: 116-117].

However, besides the emphasizing of the ambivalence of Descartes' position, there is another form of overcoming the reductionist interpretations of Descartes heritage. The naive and unambiguous interpretations of the Cartesian method are being replaced by the recognition of its ambiguity and irreducibility to the methodology of natural sciences. The mentioned intention is well presented in the following studies [Dika, 2015; Aaron, 2017; Brissey, 2015], and others.

Note. Dika emphasizes an insufficiency of the commonly established approach, which tends to interpret the Cartesian method in philosophy as a literal replication of the doctrine of the world. Such approach ignores the fact of Man's existence and the constitutive influence of his inner world on the result. We mean the assumptions about the homogeneity of the Cartesian method and the possibility of applying its invariant form to any science. The scholar rightly insists that mentioned approach is unacceptable for Descartes. He asserts that his method is universal and effective because of its flexibility and variability but not for its invariance. In other words, the positive point of this study lies in moving beyond the limits of the dehumanized vision of the Descartes method and heading towards the rehabilitation of its anthropological component. Clarke expresses similar ideas differently, stressing Descartes' disappointment about illusiveness of his method, which was described in the "Rules for the Direction of the Mind". Scholar writes that Descartes "...acknowledged eventually that such an ambitious project (the project of the "Rules..." — Kh., M.) was impossible to realize" [Clarke, 2006: 86].

Until recently, it was a commonly held opinion that the Cartesian project was focused on the idea of expansion and universalization of mathematics. Considering the impossibility of its accomplishment would be a complete collapse of creative plans and life fiasco. Because of the ambivalence of the Descartes main ambitious project, finding the way out from the crisis appears as the shifting of the main accents. The anthropological intention of Descartes' inquiry is only revealed as the result of interpretation of Descartes' heritage as a form of completing of the Copernicus revolution.

The essential role of the anthropological topics for Descartes is evidenced by referring to his later works. In the "Discourse on Method" and in a private letter, he mentions about the method, which he discovered in his youth, and stresses the anthropological factor as the reason of impossibility to finish the "Rules for the Direction of the Mind." In a letter to Mersen, the key role of the problem of the principles of proper human behavior is indicated: "but what am I worried about and what I believe is the most important, is to discover by what I shall be guided in my life" [Descartes, 1996, X: 137]. This is a "new project", which is an already existing problem, observed from a new perspective. In our opinion, the characteristic of the Descartes" mood that follows mentioned curiosity is highly important:

"...I will not change my thoughts ever no matter if I will discover something new". It is a firm, immutable internal conviction that is independent of any external circumstances and factors. The analysis of possible principles of this intention shows their relation to the Copernicus revolution [Descartes, 1996, X: 138].

An appropriate reflection of the anthropological project significance presupposes attention to the ambivalent manifestations of the thinker's position regarding the problem of the proper principles of human existence, which can be discovered from the pages of "Discourse on Method". Descartes consistently emphasizes the significance of mentioned problem in a positive and negative form, where, on one hand, it is about the necessity to choose my ways independently; on the other hand, it is about the necessity to get rid of the way of behavior inherited from childhood, when the mentors guided our desires.

The interpretation of Descartes' philosophical method manifests the ambiguity of his position, what is now widely discussed in scientific papers. Comprehension of ambiguity and discursiveness of Descartes' method supersedes its naive and unambiguous interpretation what is convincingly demonstrated in recent scientific publications particularly from the text of Discourse to Passions [Aaron, 2017]. Mentioned ambivalence manifests itself by emphasizing an ambiguity of Cartesian method, which is considered as a paradoxical combination of empirical and metaphysical aspects of human nature.

The interpretation of Descartes' method as focused on the experience of mathematical cognition seems to have been evidenced by philosopher's texts (especially by the text of the "Rules for the Direction of the Mind"). Mentioned attitude manifests itself in the form of a guideline for the depersonalization of the picture of the world, which defines the world as a mellowing fruit (arithmetic and geometry). In the mentioned context, the objection of the constitutive role of the individual in the process of comprehension of the truth seems to be appropriate. "... It is impossible to add anything to the pure light of the mind not to overshadow it in any way" [Descartes, 1996, X: 373]. The constitutive role of personal experience in the process of knowledge is denied in the same way. "... The mind can never be misled by any experience" [Descartes, 1996, X: 423]. It would seem that the texts of Descartes clearly confirm the legitimacy of reductionist interpretations of his position.

However, a modern revision of "Rules for the Direction of the Mind" and some other texts requires keeping the ambivalence of the basic Cartesian attitude in mind. Descartes did not consider the ambivalence as the critical obstacle. Therefore, he asserts that elimination of personality and at the same time, innate personal gifts (the ability to find the problem solution individually) appear as the constitutive elements of truth. It is the representation of the key role of the factors which are associated with the peculiarities of Descartes' personal spiritual constitution: "I admit that the natural tendency of my mind is that the greatest pleasure in my studies has always been connected not with acceptance of others arguments, but with the discovery of arguments with my own efforts" [Descartes, 1996, X: 403].

The present analysis of Descartes' position on the main forms of completing the Copernicus revolution requires paying attention to anthropologization of philosophy that he propounded. Descartes' anthropologization of philosophy manifests itself first as a radical revision of the established picture of the world and the necessity to come up with the new vision of human nature, and secondly as the focusing on Man in considering the conditions of authenticating the scientific picture of the world. The condition of the first is the rejection of the established tradition of a technomorphic vision of its basic intention, which deforms anthropology. Descriptive summary of the second moment becomes possible after comprehension of the destruction of Theocentricism and the capabilities of the human mind (as an aspect of human

nature) to be the source and guarantor of reliable scientific knowledge.

Being aware of the priority of self-education for Descartes, it is reasonable to focus on the possible forms of its implementation. The comprehension of the personal component importance at the beginning of a new system of coordinates, which is a form of continuation of the Copernicus revolution, is only one of the stages of the stated path. Substantial development of the Copernicus revolution means the acquisition of the new coordinate system. The person ought to get used to the new requirements and ideals to distance him from false ways. Explaining his position on this problem, Descartes in the tenth rule points out expediency of forming a habit of truth. Firstly this has to be done with the help of more accessible things in order to get to the hidden truths of things: "Therefore, we must first deal with easier things, first of all methodically, so to gradually become accustomed to the following accessible and familiar things, as in the play to uncover the deep truth of things" [Descartes, 1996, X: 405]. Outlining the significance of the mentioned moment, he proves at the end of the twelfth rule the expediency and relevance of personal efforts and exercises to target the further development of the method. In our common opinion, the ideas presented by Descartes are important in case of illustration of the irreducibility of his position to the abstract vision of human nature as the embodiment of intelligence. Due to Marion's observations, it seems obvious that acquisition of the new coordinates system and in the same time getting used to the truth is based on the volition component of human nature.

In Ukrainian history of philosophy, the modern achievements and anthropological interpretations of European Cartesian studies are still partly ignored. Therefore, the image of the Cartesian anthropology in Ukrainian philosophy looks fragmentary and reduced. A paper by Victor Petrushenko is an illustrative example of the mentioned condition. "Anthropological ideas of R. Dekart and B. Paskal in the context of the actual problems of modern philosophical anthropology" [Petrushenko, 2017: 24].

Superficial viewpoint on philosophy and anthropology of Descartes is dominant because the influence of the scientific revolution on the philosophy is being naively underestimated by most of the scholars. This underestimation manifests itself in form of reduction of this influence to its epistemological consequences. Mentioned approach to the interpretation of the philosophical revolution resulted in a dehumanization of Descartes philosophy. The genesis of anthropology due to this approach could be seen only in the later works of thinker. The text of an article confirms that one of the main factors of such deformation of philosophy is the neglect of the heliocentric revolution of Copernicus. This deformation was also caused by one personal Descartes' reason — the concealment of his sympathy for the theory of Copernicus. Appealing to the mentioned reason makes possible the comprehension of the process of anthropologization of philosophical knowledge, which takes place in the early texts of the thinker. Emphasizing the ambivalence of the basic intention of early Descartes' works, authors focus on the tendency of going beyond the technocratic direction of Cartesian inquiries to actualize anthropology. It was found that the implementation of the self-education within the text of the "Rules for the Direction of the Mind" is realized as a focusing on individuality and a radical changing of the will in the form of a habit. Observation of the uncompleted Copernicus revolution allows us to emphasize some following points. 1) The significance of anthropology in his draft of the system of knowledge. 2) The irreducibility of the doctrine of the human nature to its rational component. It appears irreducible to the rationality because of the leading role of will. 3) The ethical orientation of his quest. 4) The expediency of reconsideration of the established technomorphic interpretations.

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