Natural Origins of Human Consciousness

Zhumageldy Kenispaev
Department of philosophy, history, economic theory and law
Omsk State Agrarian University of P.A. Stolypin
Omsk, Russia
kenispaev@mail.ru

Vladimir Razumov
Department of philosophy
Omsk State University of F.M. Dostoevsky
Omsk, Russia
rv57@mail.ru

Nina Skosyreva
Department of philosophy, history, economic theory and law
Omsk State Agrarian University of P.A. Stolypin
Omsk, Russia
nina_skosyreva@mail.ru

Sharaf Davlatmurodov
Department of philosophy
Altai State Pedagogical University
Barnaul, Russia
sharatphd@mail.ru

Abstract—Science as a way of rational cognition solves the problem of creating an objective picture of the world. The methodological principles of the study allow scientists to formulate the basic laws of the development of the universe. But there are such objects of science for the study of which a special methodology is required. One of such complex objects of knowledge is human consciousness. The difficulty that scientists and philosophers encounter when studying it is that consciousness is the subject of its own knowledge. Human’s consciousness is not only the result of the evolution of nature, but also the main tool for knowing its laws. A human in the scientific picture of the world appears as the highest stage of the evolution, and the boundary between animals and man is the consciousness. But, it is possible that this boundary is conditional, and the consciousness and the entire spiritual life of a person have completely material, that is natural foundations. Our paper is devoted to the discussion of this topic.

Keywords—philosophy, science, evolution, person, consciousness, nature.

I. INTRODUCTION

The world we live in is so excessive that scientists have studied only a small part of it. Moreover, in science, in particular in philosophy, there are so-called “eternal problems” that Thinkers of all historical epochs are trying to solve. Indeed, as critics of philosophy claim, it cannot answer one single question. But such claims are not entirely correct, since in each historical period new facets of the studied objects appear. “Progress in philosophy”, writes V.V. Vasiliev, “...for the most part does not consist in final decisions, but in a slow but sure clarification of a particular topic, in the rejection of unpromising approaches and the search for new ones” [1].

Scientific theory is a kind of abstract model of the world, which reflects its basic properties. Back in modern history, the philosophy of F. Bacon, R. Descartes and other Thinkers formulated the problem of searching for methodological principles that allow us to explore the objective world. The main requirement of classical science is the elimination of subjective factors in the knowledge of nature. It was understood as something objective and opposite to man, and the goal of science and technology, as F. Bacon claimed, is to conquer nature. According to this tradition, human consciousness, relying on its creative essence, is able to systematize nature, to give it a certain form. “It is by putting things in order,” T. Kuhn writes, “that most scientists are engaged in the course of their scientific activities. This is what I call normal science here. A closer examination of this activity (in a historical context or in a modern laboratory) gives the impression that they are trying to “squeeze” nature into a paradigm, like into a pre-assembled and rather tight box” [2].

In modern history, a peculiar demarcation line was drawn between the consciousness of a human and the rest of nature. A human was seen as the ultimate goal of evolution, the only possible form of intelligent life on the planet. Thus, the absolutization of spiritual principles in a person, the search for other than the natural foundations of life is the intention that was generated by the European culture of the New Age. “The error stems from excessive reverence and almost worship of the human intellect,” writes F. Bacon, “...which made people move away from the study of nature and scientific experience and soar in the fog of their own thoughts and fantasies” [3]. Idealism in understanding the essence of a human and his consciousness over time has strengthened in society and has become the dominant form of worldview. Speculative philosophy played a role in its strengthening, which, trying to explain the spiritual essence of a human, detached him from natural foundations. On the other hand, a human has always been interested in ancient mystical stories about his special position in the Universe. Therefore, in the modern information society, archaic pre-scientific ideas about a person and his purpose often dominate in the consciousness of individuals. According to the researchers, “rampant technocracy, scientism and social progressivism made an unconscious return to the black magic of the past for the mankind. Hypertrophic but unspiritual rationalism has generated a surge of outright irrationalism” [4]. We believe that the time has come from idealism to move to realism and re-examine the natural foundations of man and his consciousness. By the natural foundations of consciousness we understand its essential characteristics, which are the result of the development of cognitive abilities of higher animals. It seems to us that human consciousness has become a natural continuation of the evolution of the adaptive mechanism of animals at the social level.

II. METHODS

In the study of the natural foundations of human consciousness, the authors of the paper rely on the principle of materialistic monism. In the course of the analysis of the topic, historical and logical methods were used. The first method allowed us to analyze the main stages in the formation of a person's ideas about consciousness in a historical retrospective. Classical philosophy, when analyzing the phenomenon of consciousness, focused on the ways of
representing the external world in the subjective reality of a human. Only relatively recently has the problem of describing the possibility of the existence of consciousness as such been formulated, not as a “tool of knowledge” of nature, but as an independent substance. As one of modern researchers noted, the problem of consciousness should be divided into “easy” and “difficult”. In the second case, consciousness appears as a special subject of cognition, the properties of which cannot be revealed only in the process of analyzing a person’s cognitive activity or neurophysiological processes occurring in his brain. Nontrivial methodological solutions are needed that will allow us to take a fresh look at consciousness as an object of cognition. Another feature of classical philosophy is a clear demarcation of man from the animal world, and consciousness was considered a peculiar border of these two worlds. This attitude was strengthened in society and became an element of the scientific worldview of a human, a kind of archetype passed down from generation to generation. In order to understand the essence of such a view of human consciousness, a historical, descriptive method is needed.

The logical method has become the basis for drawing analogies in the evolutionary development of man and the rest of nature. Considering that scientific theory gives only the most general ideas about the development of living systems, many aspects of the biocenosis, that is, the features of interactions between organisms and the environment are still unknown. The logical method allows us to look at the past based on modern knowledge of the principles of interactions of living organisms, the features of their coexistence, symbiosis. Scientists believe that universal laws exist in nature; therefore, the formation of man as a species took place on the basis of principles common to all other animal species. The combined effort of various species representatives, during the struggle for survival, is one of the most common phenomena in nature. Man, as part of nature, of course, is no exception. From the physiological point of view, our inner world is filled with various life forms that support the biological homeostasis of the body. It seems to us that the symbiosis of humans and microorganisms may not be local, but universal in nature and may have some relation to the activity of our consciousness. Obviously, if the combined actions of various types of living organisms increase their chances of survival in the evolutionary struggle, then this technique works at all levels of organization of living matter, including man himself. Thus, historical and logical methods have allowed us to explore the main aspects of the topic.

The main characteristic of life in nature is the struggle for existence, which determined the need for the formation of a protective mechanism of species. In human society, this struggle has been expressed in numerous wars, which make up a significant part of our history. Scientists note that there is a sign that makes us related to the simplest forms of life on Earth - this is unmotivated cruelty, which takes various forms. “Infinite cruelty,” writes B. A. Didenko, “so vividly and generously demonstrated by humanity, has no analogies in the world of higher animals. But at the same time, it is in a strange, paradoxical way comparable to literal coincidences with morals prevailing in the life of creatures that are very far from rational forms of behavior: insects, fish, and even primitive organisms, such as bacteria, viruses” [5].

Bacteria along with archaea were the first forms of life on Earth. For billions of years of evolution, living organisms for various reasons disappeared from our planet several times. All these catastrophes were survived only by microorganisms that were able to adapt to extreme conditions. Bacteria are the most ancient forms of life, but, despite this, science has not yet studied them enough, even the exact number of their species is unknown. Man's ignorance of the lower forms of life is associated with a special look at himself and his place in the world. Already the ancient philosophers put man in the center of the universe, considering him the highest manifestation of intelligent life. Such a view of the world with each era became more and more familiar. The reason for the pride of man, of course, was his consciousness - one of the most mysterious phenomena in the universe. Given the many theories of consciousness, nothing can be said with certainty about its genesis or functioning mechanisms. But one thing can be said with a high degree of probability - consciousness is a generic sign of a person, something that animals do not have. “It is known,” writes K. Kh. Momdjian, “that many authors interpret consciousness as conscious in the human psyche, which includes processes and products of reflexive intellectual efforts controlled by thinking. I use a different (substantial) approach, according to which the whole set of informational reactions that are specific to humans and absent in animals belong to consciousness. Thus, the understood consciousness acts as the most important system-forming part of the human psyche, which covers the entire set of information reactions inherent in man” [6]. But at the same time, in classical philosophy, one can find some references to the natural, natural essence of human rationality. Analyzing a person's cognitive abilities, I. Kant wrote: “Although reason is capable of learning through rules and mastering them, nevertheless, the ability to judge is a special gift that requires exercise, but which cannot be learned. That is why the ability of judgment is a distinctive feature of the so-called natural mind (Mutterwitz) and the absence of it cannot be made up for by any school, since the school can give limited reason and seem to hammer into it any number of rules borrowed from others, but the ability to use them correctly must be inherent even to a schoolchild, and if there is no such natural gift, then no rules that would be prescribed for him for this purpose do not guarantee him from their erroneous application” [7]. But the cognitive attitude to nature is characteristic not only of man, but is inherent in all living organisms as an element of their adaptive mechanism to changing environmental conditions. Man is the highest stage in the evolution of the cognitive abilities of animals, a peculiar result of the development of living nature, all parts of which are closely interconnected. The study of consciousness without taking into account its natural roots takes us away from understanding the essence and purpose of man. But science strives for objectivity and therefore considers various hypotheses that explain the origins of human consciousness. Some scientific hypotheses, by virtue of their non-triviality, contradict the everyday worldview of man. The history of the development of scientific knowledge is the history of the gradual and consistent exposure of the ideology of anthropocentrism. It is possible that a human is not really the goal of evolution, but a means (an ecological niche) for the existence of more ancient forms of life that have dominated on the planet for billions of years.

III. RESULTS

Thus, recognizing the natural processes of human physiology, in which the microbiota takes an active part, we can assume that it plays the same role in our conscious life. Moreover, one of the main problems of modern science - the
transition from neurophysiological processes occurring in the brain to consciousness, remains unresolved. The complexity of the task lies in the lack of an adequate methodology for the study of human consciousness. Therefore, modern science, in search of answers to difficult questions, turns, including to the analysis of unscientific traditions of studying human consciousness. It is obvious that religion, mythology, and art also have as their goal the knowledge of man. In a certain sense, unscientific ways of knowing a person are of great interest, since they reflect the centuries-old experience of a person’s spiritual understanding of himself. According to many scientists, the dialogue of science with other forms of human spirituality is necessary for a more adequate view of the world. For example, an Austrian scientist, Nobel laureate K. Lorenz argued that human knowledge contains not only rational elements, but includes all the diversity of his spiritual experience “Delusion,” writes K. Lorenz, “as if only rationally comprehensible or even only scientifically proven delivers the lasting legacy of human knowledge, the scientist writes, brings disastrous results. It encourages “scientifically enlightened” young people to throw overboard the priceless treasures of wisdom and knowledge embodied in the traditions of any old culture and in the teachings of world religions. Anyone who believes that all this is worthless, naturally falls into another equally fatal mistake, believing that science, of course, can create an entire culture with all its attributes in a purely rational way out of nothing. It is almost as stupid as the opinion that we already know enough to “improve” a person in any way by remaking the human genome. After all, culture contains as much “grown up” acquired by selection of knowledge as an animal species, and so far, as you know, it has not yet been possible to “make” a single species” [8]. According to the theory of the Austrian scientist, the development of life on Earth is associated with the cognitive attitude of living organisms to the world. The ability of organisms to adapt directly depends on their cognitive potential. Significant cognitive abilities of man, developed and consolidated in the course of his historical development, allowed him to rise to the top of the evolutionary ladder. In this case, human consciousness appears as the quintessence of the evolution of cognitive abilities of all living organisms. But at the same time, a logical question arises - did not a person have “assistants” or “satellites” on this long journey? Here we recall the role of microorganisms in human life, their importance for digestion, the normal functioning of the immune system, and much more. But, recognizing the importance of bacteria in the physiological sense, a person, as a rule, denies the possibility of their participation in his conscious life. But, if the cognitive attitude to the world, according to scientists, is not the prerogative of man alone, but is a universal adaptive mechanism of all living organisms, then the border between the animal kingdom and man is not absolute, but relative. It’s all about the degree of development of cognitive abilities: man has managed to develop this natural ability to the greatest extent than the rest of the animal kingdom. In our opinion, the absolutization of specifically human qualities associated with his consciousness leads to a distance from the truth, which should not be sought in differences, but in the unity of man and nature.

IV. PRACTICAL SIGNIFICANCE

It seems to us that the practical significance of our study lies in the ability to take a fresh look at the phenomenon of human consciousness. It is known that in science there is no consensus on the genesis of a human, its formation as a species. Many modern scientists believe that the search for answers to complex questions related to the problem of the origin of man should be sought in its natural sources. “If we affirm that the Homo Sapiens species is the “crown” of Nature’s creation, it is still only one of the links in the general evolutionary chain of animal species, then we commit ourselves to seek out and scrupulously investigate precisely those evolutionarily adaptive mechanisms and patterns individual and collective behavior, which either increase the degree and level of individual and population survival and reproduction, or, on the contrary, lower them” [9]. We believe that the study of the natural foundations of human consciousness has both theoretical and practical significance.

The results of the study can serve as the basis for a review of established views on the person himself. The practical significance of this study is associated not only with a new rethinking of the human problem, but also with a change in the general ideology of the relationship of man to nature. Anthropocentrism demonstrates its failure due to the constant crises repeated in the history of mankind. Environmental problems that arose along with the active exploitation of nature of man indicate a wrong policy of people in relation to it. If we distinguish ourselves from nature as the goal of its evolution, then an inadequate picture of the world arises in which a person is out of touch with other animals, a kind of anthropological robinsonade is born. If we are part of wildlife, moreover, if we are its rational part, then it is necessary to look for “threads” that connect us with it.

There is a direct connection between the worldview of a person and his attitude to the world. The study of the genetic connections between man and nature, the appeal to natural philosophical traditions in understanding the laws of life are the main trends in modern science and philosophy. In our opinion, the study of the natural foundations of consciousness will be important for a more complete picture of the role and place of man in the world. The study by scientists, philosophers of the topic of human consciousness is an indicator of the search for a non-trivial view of life, the various forms of its manifestation, and the desire to integrate knowledge of various sciences about man into a single whole. With the traditional approach to solving human problems, there is a temptation to build an evolutionary ladder from lower to higher forms of life, between which there are significant differences. Such a view of the world, in the end, led to a false conclusion about the special status of man among other living organisms, to an idealistic interpretation of his essence. With this methodological approach, the idea of anthropocentrism arises, which has become the core of the modern scientific picture of the world. The evolutionist theory prevailing in the minds of most educated people does not allow a proper assessment of the role of other organisms in the development of man as a species. Therefore, we are faced with the problem of the lack of an objective scientific method for determining a person’s place in the biosphere of the Earth.

We believe that a critical look at a human will reveal new aspects of his essence and will provide a more objective picture of him. New facts and hypotheses will significantly supplement the textbooks of history, philosophy and anthropology. In this we see the practical significance of our study.
V. CONCLUSION

At the beginning of our paper, we noted that science always seeks to streamline nature, to give it a certain form. Scientists, as a rule, examine the environment only for those facts that are consistent with the prevailing paradigm in science. This is the case with the search for the origins of human consciousness. Consciousness is the only thing that distinguishes us from animals and this last frontier, apparently, we will protect, using the entire arsenal available in modern science. Meanwhile, following the logic, it can be assumed that as a result of the symbiosis of various organisms, their active interaction occurs, which helps them in the evolutionary struggle for survival. But such an interaction between humans and microorganisms cannot be limited only by physiology; it probably exists in relation to our consciousness. In our opinion, to change the situation, we need a new Copernicus, which, based on scientific facts, will refute the currently prevailing anthropocentrism and create a new world system based on the principle of the unity of living matter and the recognition of the natural foundations of human consciousness.

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