

BIOLOGICAL REDUCTIONISM OF CONSCIOUSNESS IN MODERN MATERIALISM

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The article describes the search for new philosophical and methodological issues of the analysis of consciousness, along with the methods of neuroscience. In this way technically necessary methodological reduction analysis of human consciousness is perceived as ontological. The author, analyzing the latest scientific publications on this topic, concludes that cognitive analysis of the subject of thinking is substituted with the molecular analysis of the brain (that excludes the consideration of the brain as a tool). Thus, the attempt to solve the mystery of the relation of bodily and spiritual by neurobiologically reduction method generates in the field of cognitive science more problems than it solves.

Key words: consciousness, neuroscience, methodological reduction, cognitive, physicalism, biological reductionism, free will, determinism, brain.

В статті описується пошук нових філософсько-методологічних проблем аналізу свідомості методами нейронауки. Таким чином, методологічно необхідна редукція аналізу людської свідомості представляється як онтологічна. Автор, аналізуючи останні наукові публікації на цю тему, приходять до висновку, що когнітивний аналіз суб'єкта мислення підміняється молекулярним аналізом мозку, що виключає розгляд мозку як інструменту. Таким чином, спроби розгадати таємницю співвідношення тілесного і духовного, шляхом методом нейробиологічної редукції генерує в області когнітивної науки більше проблем, ніж вирішує.

Ключевые слова: сознание, неврология, методологическая редукция, когнитивный, физикализм, биологический редукционизм, свобода воли, детерминизм, мозг.

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The study of consciousness in the late 20th century has become one of the key issues in the Western analytic philosophy. The study of language, once occupied a central place in philosophical works, are only one means of analysis of consciousness, along with the methods of neuroscience. In this way technically necessary methodological reduction analysis of human consciousness is perceived as ontological. Thus, the attempt to solve the mystery of the relation of bodily and spiritual by neurobiologically reduction method generates in the field of cognitive science more problems than it solves. Over the past decade, the number of works on the problem of consciousness in scientific and philosophical circles is growing every year. Such as monographs by: D. Dennett, V.A. Vasiliev, D. B. Volkov, N.S. Ulina and D. Hofstadter. Books: D. Swaab, D. Kazennov, R. Dawkins, S. Hawking, A. Markov, C. Prist, M. Alper, C.D. Frith, S. Harris, D. Pereboom, of L. Wolpert, D. Wegner, C.Koch and other. Scientific articles: F. Crick, I.V. Starikov, V.V. Selishev, N.S. Ulina, G. Rogonyan, S.L. Hudiev, J. Hogan, D.I. Dubrovsky and others. In this paper, taken as a reference to the most recent books and publications on the topic. The problem of consciousness and its aspects has been discussed at various conferences and Ukrainian philosopher-theologians of Kyiv-Mohyla Academy (the section within the "Ukrainian science festival 2013") and the Kiev theological Academy (conference "Frontiers of knowledge" 2012), at the philosophical faculty of Moscow State University, in particular with D.V. Bugaev, D.V. Ivanov, A.A. Kostikova, Y.R. Selivanov and others.

The purpose of the study is to mark the context of researches and publications on the problem of consciousness in the twenty-first century. Identify the main trends in the study of consciousness from the standpoint of physicalism and biological function of religious experience. The objectives of the study are to identify parcels of biological reductionism in anthropology; to designate the formation of physicalism in theories of consciousness; to show the problems of consciousness and free will within the framework of biological reductionism.

In a small article "Man and History" Max Scheler identifies five types of human understanding. 1) religious conception, 2) ratiocentered "homo sapiens", 3) "homo faber", defined by instincts, 4) "sick with his spirit animal", whose mind creates only fictions and surrogates, and 5) "postulatory atheism of responsibility": God must not exist in the name of human freedom (N. Hartmann, D. Curler, M. Scheler, J.-P. Sartre). In recent years, the desire to comply with scientific certainty deflects

«postulatory atheism», strengthening and developing the understanding of human nature close to the fourth paragraph of anthropology at Scheler's graduation.

Philosophical origins of this type can be seen already in the anthropological dualism of Descartes according to which the sovereign intelligence interacts with the body as a kind of mechanism. Thomas Hobbes clearly expressed this idea in the introduction to "Leviathan", where the human body is likened to a machine, and his life is presented as a result of the movement of its parts. This kind of principle T. Hobbes and J. Locke attached to the psyche also. Mechanistic perception of a person, viewed as a machine is widely used in philosophy of Modern times. With the shift in emphasis from "res cogitans" on "res extensa" philosophy came to the principle of "man – machine" Julien La Mettrie. The same reduction expressed: Holbach, Helvetius, Diderot, Pierre Cabanis, deduced thoughts from the brain as bile from the liver, and others. The basic premise of this anthropological direction – a man is the product of a deterministic nature, so that he "can not – even in thought – to get out of nature" (P. Holbach "The system of nature"). In the XIXth century such anthropological conceptions also had successors, such as L. Feuerbach, F. Engels, I. Sechenov and others.

In the XXth century this area was developed not only philosophers, but also representatives of psychology, claiming to be scientific in their theories of human nature (B.F. Skinner, K. Lorenz, E.O. Wilson). Skinner wrote: "We will have to abandon the illusion that human beings are free agents, in control of their own behavior, for whether we like it or not" [13: 438].

Today, the concept of individual identity as a memory (J. Locke) or self-reflection (K. Jaspers), as autonomy over the laws of nature (Kant) or individuality (G. Leibniz, F. Schlegel, F. Schleiermacher) are compatible within the overall model of consciousness, which itself subject to reconsideration. The main category of consciousness remains the category of freedom. Around this central characteristics and unfold the basic scientific and philosophical discussions. The natural tendency of modern science to give a scientific basis for all the observed phenomena developed in the framework of logical positivism in the concept of physicalism, which was developed as far back as R. Carnap, O. Neurath, and others. Proponents of this principle put the value of any provision of any science in dependence on the ability to translate it into the language of the laws of physics. If the phenomenon cannot be so described, it shall be considered as a phenomenon devoid of scientific sense. Such metaphysical monism in the study and description of human consciousness impels all things that pertain to personality, to attribute the activity of the brain.

In the late XXth century philosophical and scientific experimentally search specific structures of the brain and its functioning in accordance with religious or mystical experience. Michael Persinger in his research "The sensed presence within experimental settings: implications for the male and female concept of self" and Vilayanur Ramachandran favored the direct dependence of the religious experience of the temporal lobe [21: 147]. In the same vein physicalism resorted to describing consciousness physicalists "first" and "second wave" such as B. Skinner, R. Carnap, W. Sellars, W. Quine, H. Feigl, J.J. Smart, D. Armstrong, and others [28: 161]. In these years gaining popularity such research areas as neurotheology and evolutionary religion – the study areas of the brain responsible for religious experiences. The basic premise of both directions: religion – a product of evolution the human mind.

Din Hamer discovered spirituality gene. He described it in his book «The God Gen: how faith is hardwired into our genes» (2004) [23: 249]. Also the plot of "atheism" was found in the rear bottom of the left and right parietal lobes. In 2010 Italian neuroscientists have argued that people who are in the result of the operation lost that part of the brain, significantly increased the propensity for religious experiences [23: 251]. A number of modern scholars on the way to establishing a coherent materialist anthropology come to a complete rejection of the ontology of consciousness and freedom. A person can not fully aware of all the determinants affecting him, it means that freedom is an illusion. For example, a British biologist and Nobel laureate Francis Crick writes: "You, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules. Who you are is nothing but a pack of neurons. ... although we appear to have free will, in fact, our choices have already been predetermined for us and we cannot change that" [27: 30 – 31].

After F. Crick's death, his co-author Christof Koch continues the research. In the book 2012 "Consciousness: Confessions of a Romantic Reductionist" [11] in the chapter on free will, after lengthy discussions about its probability it comes to its scientific undetectable. Even if the free movement of the will hypothetically would be done, "for an external observer the laws of physics will not be disturbed and quantum event would be indistinguishable from randomness" [11: 174].

This same idea is expressed by Richard Dawkins in his book "The God Delusion" [3] and in his other publications. He proposes to resolutely refuse categories of consciousness as a phenomenon of freedom: "Retribution as a moral principle is incompatible with a scientific view of human behaviour. As scientists, we believe that human brains... are surely governed by the laws of physics. When a computer malfunctions, we do not punish it. ... But doesn't a truly scientific, mechanistic view of the nervous system make nonsense of the very idea of responsibility, whether diminished or not? Any crime, however heinous, is in principle to be blamed on antecedent conditions acting through the accused's physiology, heredity and environment ... mental constructs like blame and responsibility, indeed evil and good, are built into our brains by Darwinian evolution. Assigning blame and responsibility is an aspect of the useful fiction... My dangerous idea is that we shall grow out of all this and even learn to laugh at it, just as we laugh at Fawltly when he beats his car" [2].

The British astrophysicist Stephen Hawking agrees with him; he wrote in his book «Grand Design» [9]: "Recent experiments in neuroscience support the view that it is our physical brain, following the known laws of science, that determines our actions, and not some agency that exists outside those laws... It is hard to imagine how free will can operate if our behaviour is determined by physical law, so it seems that we are no more than biological machines and that free will is just an illusion" [9: 32].

Professor of philosophy at the University of Vermont Derk Pereboom thinks: “Given our best scientific theories, factors beyond our control ultimately produce all of our actions, and thus, we are not morally responsible for them” [12: 1, 112]. With the same idea of the complete inability of freedom is Professor of psychology at Harvard University D. Wegner in “The Illusion of Conscious Will” [16]. To a direct question, “Can you say that free will in our usual understanding is – an illusion?” He replied: “Yes, it is – an illusion, but one of those about which we can say that they have a very solid foundation” [18].

The themes of free will and causes of religious commitment in almost every publication of the last 20 years are revealed by Daniel Dennett. In the book “Freedom Evolves” (2003) [5] he attempts to explain how free will can be combined with naturalistically explained consciousness, and in the book “Breaking the Spell” (2006) Dennett explores possible options for the evolution of religious experience, and comes to the denial of free will in a religious sense. Scientist says it this way: “Free will, in other words, is not the capacity to do something but the capacity to know that something is being done in your name” [4: 132]. According to some researchers, this problem is the Achilles heel of philosophy Dennett [19: 8].

In his book, “Six Impossible Things Before Breakfast” [17] Lewis Wolpert seeks to prove the biological basis of faith in God, freedom and consciousness. The author focuses on – our ability to shape the religious and moral beliefs. Wolpert defends the idea that the cause-and-effect thinking is an adaptation required for the manufacture of tools.

Basis of Matthew Alper’s book “The “God” part of the brain” [1] is premise that religion is born of unexplained phenomena. If you explain the phenomenon of molecular, all spirituality and mystery identity will be revealed. The author draws his «ethnobotanical argument against the existence of either a spiritual reality»: if the chemistry can affect the mind, then - there is no God, consciousness and freedom of thought. Alper’s conclusion is: «science had resolved the riddle of the human soul» [1: 11]. As “the fact that there exists a certain class of drugs – molecular combinations – that can evoke a spiritual experience supports the notion that spiritual consciousness must be physiological in nature. Herein lies the basis for an ethnobotanical argument against the existence of either a spiritual reality or a soul” [1: 158]. It is noteworthy that the ability to create, for example, auditory hallucinations does not give rise to the author’s conclusion that the source is only the brain.

Alper displays his theory: “If the human species is “hardwired” to believe in a spirit world, this could suggest that God doesn’t exist as something “out there,” beyond and independent of us, but rather as the product of an inherited perception, the manifestation of an evolutionary adaptation that exists exclusively within the human brain. If true, this would imply that there is no actual spiritual reality, no God or gods, no soul, or afterlife”. The author does not pay attention to the fact that in other cases “pre-programmed” to something, it always turns out to be really exists not only in the brain but also in reality (the mother’s milk, predators, temperature difference, etc.). “In summary, such a hypothesis suggests that all of our “spiritual” cognitions, perceptions, sensations, and behaviors are the manifestations of inherited impulses generated from neural connections in the brain and, therefore, not indicative of any actual spiritual reality” [1: 99]. Here, one could argue that absolutely all acts knowable reality us, one way or another connected with the neural processes of the brain, but that does not mean the denial of reality.

Dick Frans Swaab’s book is written in the same direction. He is the founder of the Netherlands brain Bank (NHB), director of the brain Research Institute (NIH), «We Are Our Brains: A Neurobiography of the Brain, from the Womb to Alzheimer’s» [26]. This is the world’s best-selling non-fiction. The book was published in the Netherlands in 2010, translated into more than 10 languages (Russian translation in 2014) and was sold to 500 000 copies. The author explores the whole cycle of life from infancy to senility, including all deviations from pedophilia to religious ecstasy. His concept of consciousness served as debunking the traditional ideas of consciousness, and the information about the complexity of the brain is opposed to the faith of God. In Chapter 15, “Neurotheology: the brain and religion” informative very titles of paragraphs: “Praying for Another: A Placebo for Yourself” or “Temporal Lobe Epilepsy: Messages from God”. In Chapter 16 “There isn’t more between heaven and earth” paragraph “Soul Versus Mind” dilemma is resolved in favor of the brain. However, paragraph “Heart and Soul” is also solved in favor of the brain. Subject full illusory freedom of man’s will revealed in Chapter 17 “Free will, a pleasant illusion”, where the titles of this section is also expressive: “The Brain as a Giant, Unconscious Computer” “The Unconscious Will” and so forth. Swaab argues that because religious orgasm can be seen in the brain, it is scientifically proved that nothing metaphysical about it. The sense of being not too: “Life came into being and evolved by accident and has no purpose” [15: 150]. The origins of all morality are banal survival of large groups. “Copying, the foundation of social learning, is an extremely ancient mechanism. We even have a separate system of mirror neurons for it. In this way, religious ideas like the belief that there’s life after death... and that nothing is more important than belief in God are also passed on from generation to generation and imprinted in our brain circuitry” [15: 235].

Christopher Donald Frith’s “Making up the mind. How the brain creates our mental world” (2010) [7] has a similar set of theses and conclusions but Frith further emphasizes the illusory freedom of the will of man, and in general the presence of consciousness: “We experience ourselves as agents with minds of our own. This is the final illusion created by our brains” [7: 184]. Self-reflection of the author as part of neurobiological reductionism is given at the end of the book: “A special part of the brain, the prefrontal cortex, was involved in making free selections. Rather than me making free selections, it was this part of the brain that made the free selections for me. But this is just a little “me” inside my brain that makes free selections. This little me is often referred to as the homunculus... This is my brain’s final illusion: to hide all those ties to the physical and social world and create an autonomous self” [7: 188 – 189].

In 2012 Sam Harris released a new book “Free Will” [8]. This book was included by Tom Butler Bowdon among the “50 great books on philosophy”. “It is a fine “antidote,” as Paul Bloom says, to this incoherent and socially malignant illusion [of free will]”, – wrote about the book of Harris and Daniel Dennett, published in his review last year [6]. Harris refers to experiments showing that our neurological structure actually makes us believe in the illusion of freedom of actions. But the author assures us that our thoughts and actions are a direct result of neurological conditions in our brains. “We do not have the

freedom we think we have” [8: 5]; “We do not know what we intend to do until the intention itself arises. To understand this is to realize that we are not the authors of our thoughts and actions in the way that people generally suppose” [8: 13]; “What we will do in the future and why, remains a mystery, which is determined by the previous state of the Universe (and the laws of nature), but not ourselves”. “You don’t control your own mind, because you, as a conscious entity, only the part of your mind living by the mercy of other parts. You can do what you decided to do, but you can’t decide what you’ll decide to do” [8: 57]. “Once we break the spell of free will, we can do this precisely to the degree that it is useful” [8: 63].

Alexander Markov in his “The Evolution of Man: monkey, neurons and Soul” (2011) [24] is also coming to the biological foundations of cognitive brain activity. The author notes the similarity of brain operations and empathy in fish, birds, animals and humans. Based on what makes a conclusion about the absence of God and free will of man. “We are not descended from monkeys,” writes Markov - we - monkeys, but monkeys special, cultural and moreover smart, with a total of seven registers, short-term working memory” [24: 150]. Dmitry Kazennov’s book “Life without God” [20] also applies to the neurobiology of the brain. This line of reasoning leads the author to epiphenomenalism of consciousness and lack of agency. “All I want to say, very simply and directly comes to religion, what we call our feelings or consciousness, is actually only the contents of our brain” [20: 335]. «Physicalism has no alternative» [20: 336]; “When we realize the connection between genes, brain structure, behavior, and memory there will be no space for religion in our culture and on our planet” [20: 337]. According to the logic represented by D. Kazennov, on our planet will be no place for thought as a subjective act in general.

Thus, the study of the phenomenon of consciousness in terms of physicalism has naturally lost mentality as his sign. A characteristic feature of the bulk of these scientific books based on materialism is the equalization of all human experiences. Hierarchically the perceiver himself is represented as the horizontal sum of the programs that generate useful experiences: from the desire to defecate to the thirst for God. The authors believe they preach the truth, it is the traditional outline of scientific research. But the picture of the world that, promoting by their books, does not need in this category. Because in neurobiological dimension man truth has no advantages over the experience lies as truth. This is affective experience [1: 270 – 279]. Lewis speaking about this said: “The strict materialism refutes itself, for a reason which has long said Haldane: “If my thought processes are entirely due to the behavior of atoms in my brain, I have no reason to trust his opinion”” [22: 25].

Conclusions of the mind based on materialism are so radically that they can not work, that is, to take up to practice as a guide to specific actions: because people accepted that the acts of his mind and his authorship of it – an illusion, he cannot make any practical conclusion. For Example, John Horgan in the article “Losing Faith in Free Will”, coming to the conclusion “true freedom comes from accepting there is no freedom” [10] was confused about further recommendations to life.

The last chapter of his “Ten Theories of Human Nature” Leslie Stevenson concludes: “We find a duality of human mental and physical aspects (properties, or vocabularies) unavoidable in practice, but this too gives rise to philosophical puzzlement. One traditional way of raising this set of issues is to ask how there is room for free will in a world of determining causes, but recently this has been seen as part of another question: how there is room for rationality in a physical world, how people whose brain functioning consists in neuron firings can have reasons for their beliefs and actions” [14: 226 – 227].

If consciousness is just an epiphenomenon of neural activity of the brain, then to change “their” motives by willpower man has no possibility due to anachronism (the matter → the motive → epiphenomenon of the will). In this chronology motive can not be free, but only a consequence of physical processes in the brain. Thus, there is no space for individual responsibility category. Bertrand Russell on this occasion wrote: “If necessary for acts of bodily movements are triggered solely by physical causes, for example, when someone writes a poem or commits murder, is totally absurd it would be to build in his honor a monument or send him to the gallows” [26: 20]. S.Priest makes a remark: “Materialism is the self-contradictory theory of consciousness – he writes in his “Theory of mind” – because it includes a statement that the mental is physical. However to be mental, partly, is not to have the physical properties and to be physically part is not to have mental properties” [15: 268].

An important consequence of the primacy of matter over permissible consciousness is a difference between the cause and justification. In this case, the rationale for the opinions of the individual will always be false, and the reason – always hidden. The cause may be the only mechanical processes in the brain, which by its own chemical-mechanical reasons lead consciousness to the denial or approval. The act of thinking is true only if the cause is the same with the justification. It is impossible in the physicalist universe, because reason of mental acts in it are always is state of matter (neural pathways), in turn, determines the known and unknown determinants.

In the course of investigating, we have arrived at some conclusions. The principle of biological reduction in the study of consciousness cannot be considered satisfactory for the following reasons:

1) since the cognitive analysis of the subject of thinking substituted with the molecular analysis of the brain (the tool); 2) method of neurobiological tomography eliminates not only the religious aspect, but in general the concept of consciousness, will and thinking at all; 3) ethical consequences of acceptance of anthropological physicalism are not developed; 4) a picture of existential self-reflection upon acceptance of the neurobiological reduced picture of the world is not given.

These and other aspects of anthropology, remain unresolved, making ontological reductionism in neurobiology inadequate way of describing of reality.

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