

## Evolutional Biology and Foundations of Ethics.

Rev. Dimitry Kiryanov

Tobolsk Orthodox Theological Seminary

Today number philosophers of a science consider wide spectra of the problems interconnected with evolutionary biology. Such biologists as R. Dawkins, W. Irons, R. Alexander, E. Wilson and E. Mayr assert that evolutionary biology can be the adequate basis for normative ethics. In this connection it is especially indicative that E. Wilson's sociobiology tries to reduce all variety of a human life to evolutionary changes in the nature and to generate on this basis new ethical values corresponding to level of development XXI-century humankind. For example, E. Wilson wrote: «It is time to invent moral reasoning of a new and more powerful kind, to look to the very roots of motivation and understand why, in what circumstances and on which occasions, we cherish and protect life»<sup>1</sup>.

In this connection it is interesting to analyze ethical conceptions of neo-Darwinian philosophy and try to answer question what view about human nature can lead to formation of ethical knowledge which should adhere at all times and in all places. In agreement with P. Nowell-Smith we can define morality as system which contains some fundamental propositions such as notions about human and world, conceptions of good and evil and rules which are constructed on these conceptions<sup>2</sup>. These propositions can include some things, for example: 1) recognition of sense of the world; 2) understanding of human reason as capacity of human nature which cannot reduce only to material factors; 3) recognition of real freedom of human person; 4) recognition of immutability of human nature.

The understanding of the question about foundations of ethics directly depends from understanding of the nature as a whole and human nature in particular. The answer to this question can impact on the form of a substantiation of the ethical teaching. If we suppose that human person is only product of biological evolution and its blind laws as neo-Darwinian paradigm accents then human person cannot be anything that would be defined by something else besides

aspiration to a survival of species and «maximal reproduction of genes of this species». However if human person is something more than product of biological evolution the answer to question about foundations of ethical actions becomes absolutely different.

First of all it is necessary to note a difference between neo-Darwinian biology and neo-Darwinian philosophy. Modern evolutionary theory or neo-Darwinian synthesis is biological theory which systematically explains diversity of living forms in time. Its central thesis consists of assertion that main forces of evolution of species are accident changes and natural selection. Accident changes give some organisms reproductive advantages and these “selected by nature” individuals give more descendants (or, as some neo-Darwinian thinkers thought, more survived genes). Modern synthesis also includes genetics which explains sources of changes and ways of translation these signs in evolution.

Philosophical views of neo-Darwinians are different but we can accent some common indications: 1) nature is fully accidental and we cannot to find in it any final causes. Nature does not act for an end. New characteristics and new organisms can evolve fully accidentally and organisms can survive if they can meet changes of environment. 2) Accidental changes and natural selection can fully explain adaptations in living nature without any necessity of Creator. For example, such proponent of evolutionary biology as R. Dawkins claim that Darwin made it possible to be «an intellectually fulfilled atheist»<sup>3</sup>. 3) Human is one of species of animals. We are simply product of material causes such as accident mutations and natural selection, we don't have immaterial soul and, we cannot be product of “special creation”. 4) Understanding of human behavior would be based on assumption that it is alike behavior any other animals and it is directed to maximum reproduction of human genes. For example, in the evaluation of Darwinian evolution geneticist F. Ayala wrote: «It was Darwin's greatest accomplishment to show that the directive organization of living beings can be explained as the result of a natural process, natural selection, without any need to resort to a Creator or other external agent»<sup>4</sup>.

It is necessary to note that acceptance of evolutionary biology by scientists does not demand with inevitability of acceptance of philosophical neo-Darwinism, which rest on thesis of ontological reductionism which reducing all highest levels life's organization to physical and chemical or molecular-biological processes and reactions. As F. Crick wrote, that «the ultimate aim of the modern movement in biology is in fact to explain all biology in terms of physics and chemistry»<sup>5</sup> From the neo-Darwinian point of view human person is simply one of animals, a product of the material causes such as accident mutations and natural selection. Therefore understanding of existing human behavior must be necessary based on the statement that it is alike behavior of any other animals and it is directed to the maximum reproduction of genes of this species. It is necessary to note that acceptance of evolutionary biology by scientist doesn't mean that he logically should subscribe under theses of neo-Darwinian philosophy.

First of all it is necessary to make clear what does neo-Darwinism mean by ethics and what is a specific of its representation about origin of ethical norms? We can give some different descriptions of ethics. For example W. Irons wrote: “all of these theories and ideas are looking alike in their form, all of these suppose that moral senses and inclination to moral decisions are developed by evolution which guided by natural selection... Morality is an advantage for individuals in majority of populations... First of all, morality is a form of reciprocal altruism, and second, it is form of compelled altruism»<sup>6</sup>. In the same context ethics was defined by E. Wilson which underlined that socio-biological statements start with neo-Darwinian representations and consequently try to explain ethics according to its role in stimulation of survival in dynamics of natural selection. Dynamics of natural selection supposes that species are not invariable; moreover, they represent set of every possible stages of evolutionary changing. As D. Hull wrote: «One consequence of evolutionary theory is that species as such can have no essences... Rarely if ever can a set of traits be discovered which distinguishes one species from all other species throughout its existence. Species split into two or more species very gradually. At any one time there are species in all states of

speciation»<sup>7</sup>. Other biologist E. Mayr wrote: «The species are the real units of evolution as the temporary incarnation of harmonious, well-integrated gene complexes»<sup>8</sup>. For E. Mayr this process of constantly changing of species is foundation for making ethical assumptions. He wrote: «There are two reasons why the traditional norms of the West are no longer adequate. The first is their rigidity. The essence of the evolutionary process is variability and change, and ethical norms must be sufficiently flexible and versatile to be able to cope with a change of conditions... Some of the ethical norms adopted by the pastoral people of the Near East more than 3,000 years ago are altogether inadequate for the modern urbanized mass society»<sup>9</sup>. Assumption that ethic values can change in time has its source in relativism of Mayr's view. Neo-Darwinism insists on relativity of moral norms in human societies and this thought was underlined by E. Wilson: «The requirement for an evolutionary approach to ethics is self-evident. It should also be clear, for example, that no single set of moral standards can be applied to all human populations, let alone all sex-age classes within each population. To impose a uniform code is therefore to create complex, intractable moral dilemmas»<sup>10</sup>. It was often proposed an argument that human societies have different ethical codes which have to propose that there isn't universal moral values. These values always are conditioned by culture and environment. But in opposition of this view we can tell that there are some ethical prescriptions which are common for all of human societies, and their violation is blamable in any human societies. But in these cases neo-Darwinists accent that these universal norms can be explained evolutionary as advantage for tribes in their struggle for existence. We can agree with this thesis but it cannot to explain origin of these norms by evolutionary process. Some of these norms haven't any advantage in this struggle and some of these, for example, monogamy, can decrease reproductive advantage of tribes. Position of Wilson is clear: we need to postulate ethical pluralism that we haven't any moral dilemmas!

According to neo-Darwinists nature is not only essentially changed but anything made by the nature has no purpose. All natural things are products of blind forces. Hence, there is no reason for the nature to dictate us what should we

do, and what should not. From this point of view it should be ridiculous a doubt in moral correctness artificial fertilization, fetal therapies or euthanasia. Moral problems which pay attention of our society demand decision from the point of view of human uniqueness and originality, but today from neo-Darwinian philosophical paradigm they can be simply removed from the agenda. The fact that evolution is a slow process, and thus that human nature is not undergoing radical changes from year to year, ultimately does not argue in favor of a conservative ethic. Slowness of evolution in adjusting a population to changes in the environment is a reason to take things in our own hands and to begin artificial evolution of human person. But, as noted M.D. Guerra, if there really are no natural limits on human beings, if nature really is in a constant slow state of flux, how can a Darwinian, even a morally serious Darwinian, oppose something such as the "new science" of human cloning? A self-conscious Darwinian such as E. O. Wilson realizes that cloning is simply the next stage of human "modification"<sup>11</sup>. So neo-Darwinism tries to form new "ethical principles" which are destructive for the same ethics.

Other aspect of neo-Darwinian paradigm is the accent on a materialistic explanation of the world of phenomena as a whole, and the person in particular. For example, in the evaluation of Darwinian evolution geneticist F. Ayala wrote: «It was Darwin's greatest accomplishment to show that the directive organization of living beings can be explained as the result of a natural process, natural selection, without any need to resort to a Creator or other external agent»<sup>12</sup>. Biologist R. Lewontin also agrees with Ayala: «We have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the Door»<sup>13</sup>.

But real problem is that material nature does not have any criteria of moral behavior. The basic obstacle which neo-Darwinism collides in its attempt to find foundation of ethics is that from the point of view of neo-Darwinism human person is simply animal whose purposes are identical to the purposes of animals. For animals success represents a survival, but the survival is only means for the final purpose of reproduction – propagation of genes. Ph. Hefner summarized neo-Darwinian socio-biological ethical paradigm as follows: «The essence of a reality is that value and meaning of human essence is realized best ways in behavior of self-giving which improves the reproductive future of the subject»<sup>14</sup>. However one of conditions of ethical action is that the survival and reproduction are not the main and first purposes. The purpose of a human life is not in simply living but in living according to higher properties of human nature such reason and conscience. As noted genetics F. Ayala: «If the preservation of human genes (be those of the individual or of the species) is the purpose that moral norms serve, Spencer's Social Darwinism would seem right; racism or even genocide could be justified as morally correct, if they were perceived as the means to preserve those genes thought to be good or desirable and to eliminate those thought to be bad or undesirable»<sup>15</sup>.

Another problem with neo-Darwinian paradigm of ethics is this conception fully rejects any purposes in nature. As Richard Dawkins wrote: «there is, at bottom, no design, no purpose, no evil and no good, nothing but blind, pitiless indifference»<sup>16</sup>, and Stephen Jay Gould declares: «Nature just is—in all her complexity and diversity, in all her sublime indifference to our desires. Therefore we cannot use nature for our moral instruction...»<sup>17</sup>. This rejection of any design or goals in nature with fully biological understanding of human person demands from us to recognize that human individuals cannot have any purposes besides biological. But this recognition contradicts highest sense of human existence. As J. Wolf noted the idea of design in nature is a product of philosophical but scientific reflection. This idea was lost modern natural science, but the idea of design shouldn't reject only for the reason that design isn't direct consequence of

scientific theory.<sup>18</sup> In his explanation of human place in the world we cannot be satisfied reductionist view of nature which proposed by science. Natural worldview supposes that nature is nothing but pointless mechanism and accident events. If we accept it fully, how can we assert that we have ethic obligations to created nature? «We have no ethical obligations to products of meaningless processes and random events. The experience of meaning and intrinsic value in nature is expressed by the idea of design in nature; therefore we cannot do without it. The idea of design in nature is a classical idea. The philosophical task from time to time is how we categorize it»<sup>19</sup>.

Now we need to consider other problem which interconnected with neo-Darwinian understanding of human nature in general and freedom of will in particular. If our behavior is guided only material factors then freedom is illusion. In fact many biologists agree with this thesis when they tell about selfish genes. In agreement with ontological reductionists paradigm such biologists as R. Dawkins wrote that species don't really exist but selfish genes. Materialist's philosophy reject a priori all of that cannot to be a characteristic or manifestations of matter. But it has to suppose that humans as other animals are fully conditioned by "selfish genes". This resume is so tragic and so contra-intuitive that R. Dawkins in contradictions with his view need to accent: «We have the power to defy the selfish genes of our birth... We are built as gene machines and cultured as meme machines, but we have the power to turn against our creators. We, alone on earth, can rebel against the tyranny of the selfish replicators»<sup>20</sup>. I'd like to ask Dawkins the question: «How we can rebel against genes if we are gene machines, if we haven't any force in ourselves besides matter elements which could make this rebellion?» Internal experience of human person testifies that human isn't conditioned only material factors. Human person can overcome his natural inclinations although it is often hardly to do. If human person is only byproduct of material factors then there isn't place for moral duty and shame. It is necessary to note that sociobiological explanation of moral values was criticized by R.S. Karpinsky. She wrote: «Gene-culture co-evolution of socio-biologists is

completely abstract away from real human history. Notion of culture is only nominal. Socio-biologists cannot tell anything about it and its opposite influence to genes and, it seems to me, they don't wish to tell about it when they base by biology "a new science about human people"<sup>21</sup>. According to Karpinsky, socio-biologists overlook that human genes are implanted in his culture, "work" in a new holistic frames of noo-sphere and we cannot define them as only biological. Even within the limits of biological development of human it is necessary to speak not only about influence of biology on human formation but reverse cultural influence. When biological evolutionism is in context of investigation of co-evolution it has most difficult problem – human being. This problem is characterized for modern western philosophy of biology. For example, M. Ruse in his article «The Biological Sciences Can Act as a Ground for Ethics» assumes that biology can fully explain all characteristics of human being: «Biology—let us now agree for the sake of argument, natural selection—has played some significant role in making us moral beings. Morality is an adaptation like hands, teeth, penises, and vaginas. Obviously biology does not play the only role, and we must certainly allow culture some significant part also. How significant we can leave more or less open, between two false extremes—that everything is basically cultural (the blank slate hypothesis) and that everything is basically biological (the genetic determinism hypothesis). The point is that morality has come through human evolution, and it is adaptive»<sup>22</sup>. Such indicative expansion of Darwinism which was born by sociobiology, as noted Karpinsky, cannot help to find new methodological foundations for investigation of co-evolution<sup>23</sup>. We can agree with geneticist F.Ayala who wrote: «...morality exists in objective reality because our exalted intelligence allows us to anticipate the consequence of our actions in regard to others and to evaluate the actions in terms of these consequences... Morality is an adaptation that contributes to the biological success of our species, but it is an exaptation, rather than an adaptation, because it was not directly promoted by natural selection. Moral codes are products of cultural evolution, not direct outcomes of natural selection»<sup>24</sup>.

Modern moral relativism directly connected with loss by humankind belief in necessity of absolute values and meanings and it was the reason of modern existential crisis. Way out of this existential crisis is possible only if we could recognize along with horizontal measurement of life of human person also vertical measurement. We can agree with understanding that human being has deep connection with world of animals but at the same time we need to accent on specific characteristics of human beings which mark out them from animal world. This understanding demands to recognize complementarity of human nature and for understanding this analogy we can use thought such founders of modern physics as W. Pauli and N. Bohr. This principle supposes that we can tell about human on different levels of descriptions: «...the impossibility of combining phenomena observed under different experimental arrangements into a single classical picture implies that such apparently contradictory phenomena must be regarded as complementary...»<sup>25</sup> Bohr wanted to say that there were many different apparently contradictory ways of classifying human experience. A sunset could be examined from a physical point of view by thinking about the passage of light and why the sun appears to be red, or the combination of colors could be marveled at from an aesthetic point of view. In the same way, a Beethoven sonata could be examined as a vibration in the air or as a spontaneous musical and emotional state. In his later essays, Bohr applied his thinking on complementarity to research into philosophy, biology, psychology and culture. For example, in spite of their apparent contradictory nature he saw free will and determinism, or brain processes and consciousness, as essentially complementary methods of portrayal which completed each other.

Orthodox-Christian view of human is founded on representation about the person as belonging two worlds – spiritual and natural, and at the same time it is irreducible to one of aspects of reality. From the biological point of view humanity is participated to all living beings and it is the reason why it can be considered as object of a biological science, but at the same time existential experience of tragedy of human existence testifies that the essence of the human person is

irreducible to biological factors and human is above only natural existence. Duality of human being doesn't represent fully divided worlds *res cogitans* and *res extensae* as spoke R. Descartes. This duality can be to understand in perspective Orthodox theology of Creation as presented St. Maximus the Confessor (VII). Natural contemplation investigates sensible world and comprehends in it *λόγοι* of being<sup>26</sup>. In his view the creation, on the one hand, is evolved by guidance of Divine Logos, and on the other hand, this guidance didn't exclude possibility of self-development and formation of hierarchical structures of creation by *λόγοι* which was initially put in it by God. These narrow relations of Logos to the world are expressed by His energies of small *logoi* (*λόγοι*). As E.L. Eriphanovich noted: «according to threefold activity of Logos – creative, providential and judging – His *λόγοι* or ideas are manifested threefold: as fundamental sources of laws of nature (*λόγοι φύσεως*) and as goals or ways of Providence and court (*λόγοι προνοίας και κρίσεως*)»<sup>27</sup>. This supposes that human being has participation to Logos by nature because he was created by *λόγοι* which are dynamic forces of God. These *λόγοι* embrace all being of the universe on all extent of its existence. It means that the humankind, a life and the world are a consequence of simultaneous action of two kinds of the reasons - natural and supernatural - that is why any total explanation should include both aspects of a reality. Human was created by image of God and he was called to deification, to be participant of God's nature. This first goal of creation was destroyed by original sin and resurrection of Jesus Christ is beginning of new creation in which human can actualized those *λόγοι* of creation which connect his with other living world. This organic bond between human and other world is one of conditions of future transfiguration of the world when God'll be all in all. Orthodox theologian V. Lossky wrote: «We are responsible for a world. We are that word, that *logos* in which it is expressed and in depending form us this world can pray or blaspheme»<sup>28</sup>. Orthodox understanding of human being supposes that we can accept evolutionary origin of nature and human being in horizontal dimension but we have to add to this restricted explanation vertical dimension which interconnected with ultimate goals and meanings of human existence. If

we'd like to tell about ethics for XXI-century peoples we need to be open to possibility recognizing God's existence. Ethics has its foundations in nature of human and, consequently, mistake in understanding of human nature can have fatal effects for its development. Negation of God's existence inevitably brings to negation of immaterial essences such as freedom of will, intelligence and meaning and this negation is reason of ethics destruction. But we need to accent that ethics isn't main essence of Christianity or religion. Christianity sees its main goal and sense of human being in deification of humanity in Christ. This deification or transfiguration of all creation is main sense of Christianity and ethics is one of fundamental conditions of gaining this goal.

---

<sup>1</sup> Wilson E.O. Biophilia. Cambridge. HUP, 2003. P. 138-139.

<sup>2</sup> Hefner Ph. Theological Perspectives of Ethics and Human Evolution // Religion and Science: History, Method, Dialogue. Archangelsk, 2001. P. 302.

<sup>3</sup> Dawkins R. The Blind Watchmaker. 1986. P. 6.

<sup>4</sup> Ayala F. Darwin's Revolution // Campbell J., Schopf J. Creative evolution? Boston, Jones and Bartlett Publishers, 1994. P. 4.

<sup>5</sup> Crick F. Of Molecules and Men. Seattle. U. of Washington Press, 1966, P.10.

<sup>6</sup> Irons W. Moral, Religion and Human Evolution // Religion and Science: History, Method, Dialogue. Archangelsk, 2001. P. 281.

<sup>7</sup> Hull D. Are Species Really Individuals? // Systematic Zoology, 1976. № 25. P. 174.

<sup>8</sup> Mayr E. Animal Species and Evolution. 1963. P. 621.

<sup>9</sup> Mayr E. Toward a New Philosophy of Biology. 1986. P. 85-86.

<sup>10</sup> Wilson E.O. Sociobiology: The new synthesis. Cambridge, MA: Belknap Press. 1975. P. 564.

<sup>11</sup> Guerra M.D. The Delusion of Darwinian Natural Law // Url:

<http://www.freerepublic.com/focus/news/1047185/posts?page=164>

<sup>12</sup> Ayala F. Darwin's Revolution // Campbell J., Schopf J. Creative evolution? Boston, Jones and Bartlett Publishers, 1994. P. 4.

<sup>13</sup> Lewontin R. Billions and billions of demons // The New York Review. 1997. January 9. P. 31.

<sup>14</sup> Hefner Ph. Theological Perspectives of Ethics and Human Evolution // Religion and Science: History, Method, Dialogue. Archangelsk, 2001. P. 302.

<sup>15</sup> Ayala F. What the Biological Sciences Can and Cannot Contribute to Ethics// Contemporary Debates in Philosophy of Biology. Oxford. Wiley. 2010. P. 330.

<sup>16</sup> Dawkins R. River Out of Eden. NY. Basic Books, 1995. P. 133.

<sup>17</sup> Gould St. J. Rocks of Ages: Science and Religion in the Fullness of Life. NY, Ballantine Publishing Group, 1999. P. 195.

<sup>18</sup> Wolf J. The Idea of Design in Nature: Science or Phenomenology? Url.:

<http://www.metanexus.net/conference2009/articles/Default.aspx?id=10856>

<sup>19</sup> Ibidem.

<sup>20</sup> Dawkins R. The Selfish Gene. Oxford: Oxford University Press. 1989. PP. 200-201.

<sup>21</sup> Karpinsky R.S. Biology and Humanism // Philosophy of Biology: Yesterday, Today, Tomorrow. In Memoriam of Regina Semenovna Karpinsky. M., 1996. P. 21-22.

<sup>22</sup> Ruse M. The Biological Sciences Can Act as a Ground for Ethics// Contemporary Debates in Philosophy of Biology. Oxford. Wiley. 2010. P. 303.

<sup>23</sup> Karpinsky R.S. Global Evolutionism and Life's Sciences // Global Evolutionism. M., 1994. P. 11.

<sup>24</sup> Ayala F. Op. cit. P. 333.

<sup>25</sup> Bohr N. Essays 1958/62 on Atomic Physics and Human Knowledge. Interscience. NY., 1963. P.25.

<sup>26</sup> Epiphonovich S.L. St. Maximus the Confessor and Byzantine Theology. M., 1996. P. 127-131.

---

<sup>27</sup> Ibidem.

<sup>28</sup> Lossky V.N. Essay about Mystical Theology of Eastern Church. Dogmatic Theology. M., 1991. P. 241.