

Dialectic Aspect of Evolutionary Outlook

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The evolution is historical development of organisms, which, in turn, is a consequence of the fight of contraries. Such fight comes through any existence, and is displayed also in the mind. In doing so, these contraries are perceived as irreconcilable contradictions. Such a problem may be overcome by due philosophic education (dialectic logic). In the opposite case, the theory of evolution will not be perceived in adequate way.

I will give a number of examples:

1. After my report, devoted to reconstruction of the prototype of the flowering plants, chairwoman (mother of two children!) asked a question: do I recognize the difference between dicotyledons and monocotyledons (classes of the flowering plants). In the daily reality, just practice showed her that descendants may have a common ancestor, but the theoretical statement was incompatible with her outlook.

2. In my article was written: "with development of asymmetry¹ /of the gastropod shell/" ... the reviewer made a remark: "In this case asymmetry would already be and its development would not be required". In such a way, the reviewer considered the asymmetry of shell not as the deviation of symmetry, which could be lesser or greater, but as total lack of symmetry. In the same article, I wrote that the cause of gastropod's shell asymmetry might be the internal asymmetry of their ancestors (in all mollusks the intestine is turned in asymmetric loops). The reviewer answered: "The fact that symmetrical animals were ancestors of gastropods is known to any competent zoologist". In such a way, the reviewer considered the contraries (symmetry and asymmetry) as incompatible contradictions that cannot present in the same organism. I talked with him and asked: "Are the valves of bivalve mollusks symmetric?" He answered: "Of course!"

— "And the hinge?" (where a notch in one valve corresponds a tooth on the other one)

— "It's no object!"

3. In the discussion about the theory of evolution, the creationist asserted that there is no transitional forms between monkeys (including apes) and man. I answered that a chimpanzee is sufficiently closer to a man than to a guenon, therefore, is the transitional form. Then he advised that Australian evolutionists placed

chimpanzee to the genus *Homo*. The common between the creationist and these "evolutionists" is that both do not see transitional forms. Or the wall, or the complete fusion (the logic of identity).

The evolution passes through criticism of an organism by surroundings. In the case when reviewers possess an absolute authority proceeds something like the artificial selection. Thus, according to the initial version ammonites closed the mouth of the shell by the opercula, positioned on the mantle, anaptychi and aptychi. Afterwards it was put doubt on this version and the given formations were interpreted as jaws. Number of scientists, including the author of brilliant monography by ammonites, U. Lehman (together with C. Kulicki), synthesizing colliding statements of authorities, suppose that jaws of ammonites performed at the same time as opercula [3]. It is sufficiently to remind that in the recent cephalopods the jaws are hind in the dense lump of muscles in order to understand, which monster is proposed in the kind of reconstruction.

The relation to theorization in the scientific periodic could be seen on example of my article, where I prove that the relict cephalopod with the internal spiral shell, *Spirula*, is the descendant not of bent, belemnite-like forms, but of typical ammonites. The article was sent to the "Paleontological journal", the magazine of the Russian Academy of Science. The manuscript was directed on the review to the scientist, whose views I criticize! The deal is that the criticism is perceived as a reference — I can estimate this by reviews on my articles. Such a case was not the first, I expected this, and connected with the reviewer. He promised a positive review, but preferred to keep silence. Instead, I received negative comment from editorial board, in which was said: "No new author's actual material is presented. All the conclusions and reasons of the author are grounded on the retelling and/or reinterpretation of the observations of other researches". I. e., by the opinion of the editorial board, the paleontologist should to collect the empiric matter and not to comprehend in the critical way data of his predecessors. The same rebuke could be cast to Einstein, who did not perform experiments by the theory of relativity! Indeed, I found very important fact, unnoticed earlier, but I not devoted him a separate article, and considered it in the general context. Subsequently the article was published in the non-peer reviewed bulletin of the National Museum of nature and ethnography of Moldova, and afterwards was placed on the site of Jurassic Commission of Russia among the selected publications [4].

Currently evolutionary view is supported by molecular and genetic data. It is necessary to remark, however that lack of dialectic outlook may lead to disregard to the level of an organism as biological unit. Thus in the botany, the family of Lemnaceae (duckweeds) was fused with the family Aracea (*Calla*, *Monstera*, *Philodendron* etc.) on molecular groundings, whereas specialization of the former to aquatic habit on macroscopic level is too big (fusion of the leaves and stem in one structure, frond, reduction of roots, etc.). Such a step is, in my view, is a sequence of the fight between the new and the old scientific discipline,

proceeding in the direction contrary to that of nature of organisms. It may be comparable with placement of whales in the same order with their terrestrial ancestors.

Some characteristic idealization of the data of genetic, in my view, are clearly displayed in the book of R. Dawkins "Selfish gene". So, it is worth to examine some its suggestions.

In the foreword to the first edition, R. L. Trivers writes: "There exists no objective basis on which to elevate one species above another" [2: XIX]. In such a way, L. R. Trivers rejects the fundamental principle of the evolution: progress of the living forms.

In turn, Dawkins assumes that the predecessors of our life were nude nucleic acids, replicators, tending to reproduce themselves, even at the expense of other replicators. The organism is no more than their machines, which are thrown, when they serve the term.

In such a way, the initiative here is prescribed to the gene.

Regarding to the concept, I would notice that the nucleic acids belong to polysaccharides, common skeletal material. Indeed, R-RNA serves as skeleton of ribosomes. Perhaps, it was initial function of the nucleic acids, so the organism cannot be considered as their derivative. Furthermore, after the death, the organism is "thrown" with all somatic genes, and genes in gametes would be powerless without a portion of cytoplasm with organelles. So, the concept of "immortal coils" (the name of the third chapter) is idealistic. The conflict, which takes place here, is not between gene and organism, but between the unity and multitude; between an individual and a genus.

It is necessary to remark that, besides to reductionism, this concept is similar with that of Darwin, who accepted for the grounds of the struggle for existence "the high rate at which all organic beings tend to increase" via reproduction [1: 63]. Of course, this ability is principal for the evolution, proceeding in generations. Nevertheless, I think the basic ability, making living organism alive, is the tendency to preserve the constancy of organization and the autonomy from surroundings through constant changes and in spite of them. Otherwise the organisms would adapt themselves to environment in the easiest way — death, decay and fusion with surroundings. The ability to reproduce is an aimed destruction of a living unit, the defensive reaction against hostile environment.

In his book, Dawkins constantly identifies exact genomes with the same individual (the logic of identity). He even states: "If an individual could be sure that a particular person was his identical twin, he should be exactly as concerned for his twin's welfare as for his own. Any gene for twin altruism is bound to be carried by both twins, therefore if one dies heroically to save the other the gene lives on" [2: 93]. Indeed, the mother's love in higher forms is based on affinity, this is not ever true for progeny. I would remind that in several species of cranes, two newly hatched chicks enter deadly fight. The identic thing is not the same one.

So, giving birth to the other organism (or replicator) is already altruistic act. It is even more altruistic in the sexual process, where progeny shares only 50% from each parent.

Dawkins emphasizes egoism of genes. Though some chapters, especially "Nice guys finish first", are devoted to development of altruistic relationship (e. g. in societies of vampire bats), the author says: "We have the power to defy the selfish genes of our birth... We can even discuss ways of deliberately cultivating and nurturing pure, disinterested altruism— something that has no place in nature, something that has never existed before in the whole history of the world. We are built as gene machines..., but we have the power to turn against our creators. We, alone on earth, can rebel against the tyranny of the selfish replicators." [2: 201]. But what is the case of such an aspiration? This question remains unsolved by the author.

The deal in my view is that Dawkins considers the altruism as a total rejection of the egoism. However, the rejected characteristic is present after its rejection as an element of development — and this is the law of dialectics. Altruist sacrifices his life (or efforts) not because to him has bothered to live. He continue to love his own life, but places welfare of somebody higher. For this reason we appreciate an exploit of hero.

I think that the dialectic of individual and common could lead to the new base of the group selection.

Dawkins is far from such conclusion. Furthermore, instead to anatomize arguments of opponents (among which he mentions the laureate of the Noble Prize Konrad Lorenz, scientific writer Robert Andrey and founder of the human ethology Irenäus Eibl-Eibesfeldt), and to extract the truth (which is contained in each work), Dawkins pushes their ideas away, accepting his own opinion for the absolute criterion of truth: "The trouble with these books is that their authors got it totally and utterly wrong. They got it wrong because they misunderstood how evolution works. They made the erroneous assumption that the important thing in evolution is the good of the species (or the group) rather than the good of the individual (or the gene) [2: 2]."

It is lagged behind to regret that the famous author carries discussion in such a way, and teaches such approach new generations of scientists.

Remarks

¹Such an asymmetry in individual organism is a specific kind of symmetry — generic symmetry. Thus, in normal human individuals the heart is found on the left side of the breast.

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