

Role of Philosophical Categories in Biological Processes

Salimov Bakhriddin Lutfullaevich

Professor of Tashkent State Transport University

Qutliev Ozodbek Azizjonovich, Rahimjonov Khumoyun Yashnarjonovich

Student of Tashkent State Transport University

Article Information

Received: December 26, 2022

Accepted: January 27, 2023

Published: February 28, 2023

Keywords: *Chance, nature, biosphere, bifurcation, ecological culture.*

ABSTRACT

The article gives a number of conclusions about the origin, development and coincidence of species present on Earth, and concludes on the basis of heredity, mutation and selection, of all living things, including the origin and development of humanity. It is particularly noteworthy that the coincidence is the result of the interaction between these internal and external conditions. Indeed, the occurrence of any coincidences depends on the internal and external circumstances and the relationship between them.

INTRODUCTION

It is known that philosophical categories, in particular, the role of chance in the existence of not only human and social life, but also other creatures in nature, as well as plants, are of decisive importance. This has been and continues to be proven, especially in discoveries in the natural sciences. Of course, when speaking in this area, first of all, Ch. Darwin's name is mentioned. This English scientist has several opinions about the origin and development of species on earth, and their relation to chance¹, which are sufficiently well-founded that it is impossible not to admit them: "It should be emphasized that all the creatures of this world have been significantly affected by chance." In general, Ch. Darwin is a scientist who put forward a unique view of the origin and development of all living beings, including mankind, based on genetic characteristics, mutation and selection.

DISCUSSION AND RESULTS

Ch. Darwin's time required that "it was necessary to explain how changes in genetic characteristics occur and how they are transmitted to the next generations within the framework of Darwinism." The first of these questions was answered in the theory of mutation, and the second in the theory of heredity." It is known that most people know very well what the theory of heredity is, but many people do not know what "mutation" is. So, "mutation is a spontaneous (in the sense of "unpremeditated") phenomenon that can be explained from a scientific point of view (even if it cannot be predicted, it can be explained at least retrospectively. In other words, we can explain an

¹ Salimov Baxriddin Lutfullaevich. The philosophical role of dialectical categories in human life. Oriental Renaissance: Innovative, educational, natural and social sciences. Volume: 1, Issue 6, 2021. -P.406-410.

event that happened after it happened, although we cannot predict when and where a mutation will occur)» As it can be seen, the mutation process is somewhat like a coincidence². After all, chance, like mutation, is an unplanned event, and we cannot tell when, where and how it will happen. We can only know the coincidence after it has happened. It is clear that "the process of mutation acquires a random character to a certain extent. This is expressed in such a way that it is impossible to tell in advance what the next generation, that is, the mutant, will be like. Take nitric acid as an example. Its chemical action is unique in that it produces oxidation only involving the amino group. However, from a biological point of view, its action is not unique in its content. Because it is clear that genes contain many nucleotides, and changes that have a specific base in one gene are more likely to occur in other genes as well. Based on this, the question may arise: what other types of coincidence are there? In our opinion, this question should be answered as follows: it is appropriate to divide the coincidence into two types. Coincidences big and small, or tangible and intangible, visible and invisible. There are also detectable and undetectable and harmful and harmless accidents. Now these large and small coincidences are of two kinds. Some of the big coincidences have big consequences, some don't. In turn, some of the small accidents lead to big consequences, and some do not. Therefore, both large and small accidents are divided into two parts³: the first, accidents that cause large and significant changes; the second, coincidences that lead to little or almost no change. The chance that Darwin meant is the kind of small chance that causes big changes.

Ch. Scientists who lived after Darwin, including the naturalists of the former Soviet Union ruling in the 20th century, tried to scientifically justify the role and importance of chance in the development of flora and fauna.

"We can say that it is a coincidence only in the sense that it happens in a series, often, and the reasons close to it (the coincidence) cannot be traced (the reasons for the coincidence are unknown). It is only the result of the interaction of internal and external conditions. This result can be repeated in the same form more or less times. It must be repeated more precisely»

In our opinion, this opinion expressed by K.A. Timiryazev is one of the most correct definitions of coincidence. It has a number of random features. It is especially commendable to say that chance is the result of the interaction of internal and external conditions. In fact, the occurrence of any coincidence depends on internal and external conditions (causes) and their interrelationships. A dialectical naturalist⁴ scientist who can see these things knows that everything in nature is in a relationship. K.A. Timiryazev said that the existence of any living organism is closely related to the external environment, i.e. nature. Any change in nature, a especially in living organisms. "All living creatures," wrote K.A. Timiryazev. - has a strong relationship with environmental conditions. For all living beings themselves are forms arising from these same determined conditions. As long as this is the case, changes in external conditions will leave their mark on all living organisms or have an effect on them." With this opinion, K.A. Timiryazev clearly stated that all the coincidences that occur in nature have an effect on all living organisms, including humans. Because many changes in nature happen by chance in legal situations.

K.A. Timiryazev says that the negative changes in nature can be caused by the person himself: "Coming into a struggle with nature... . Demanding answers to his questions from nature in order to conquer and subjugate it, causes himself (living beings) to fall into a position of arbitrariness. This means to end the life events or direct it (life relations) to another form." Unfortunately, many people do not take seriously the above thoughts, which were given as a warning by K.A. Timiryazev several decades ago, both then and today. However, environmental hazards are now a major scourge for our

² Салимов Бахриддин Лутфуллаевич (2020). ФИЛОСОФСКОЕ РОЛЬ ДИАЛЕКТИЧЕСКИХ КАТЕГОРИЙ В ЖИЗНИ ЧЕЛОВЕКА. Историческая психология и социология истории, 13 (1), 111-119.

³ Салимов Бахриддин Лутфуллаевич (2020). Жизненный путь природы и общества состоит из цепи случайностей и необходимостей. Colloquium-journal, (24 (76)), 55-57. doi: 10.24411/2520-6990-2020-12159.

⁴ Salimov Baxriddin Lutfullaevich. The philosophical role of dialectical categories in human life. Oriental Renaissance: Innovative, educational, natural and social sciences. Volume: 1, Issue 6, 2021. -P.406-410.

entire mother planet and all creatures on it. The situation on our mother planet is changing negatively due to the "slogans" of some scientists that man is the slave of nature, therefore, he should take what he wants from nature, he should fully subjugate nature to himself. "Having domesticated animals and cultivated plants, man began to change the environment and adapt it to meet his needs. As a result, the development of the biosphere as a system is in crisis. The biosphere has reached a bifurcation point: the biosphere is now on the verge of a qualitatively different transition to a state that is qualitatively different... including a transition to conditions favorable to humans. But, at the same time, among these there is also a way to pass to a state that is not acceptable for a person."

Unfortunately, the current development is leading humanity towards this very undesirable state. In general, "Today's social, ecological, demographic, energy situation and changes are such that if humanity does not take measures quickly, the crisis can turn into a catastrophe." And this calamity appeared only because of the activity of the highest among creatures, that is, the human being who has intelligence. And only mankind can save the earth from such calamities⁵.

Concluding on the question of the relevance of K.A. Timiryazev's views to our scientific work, we can come to the following conclusion: there are opportunities to use the category of coincidence in scientific knowledge in the creation, formation and development of ecological culture, and it is definitely time to realize these opportunities. Ecology, which is "a science that studies the living conditions of organisms and their relationship with each other", "...must search for and recommend such methods of impact on the external environment that not only prevent catastrophic consequences, but also seriously affect human life and social development conditions on Earth." should create an opportunity for improvement..." Of course, solving such an urgent issue is the task of not only ecology, but also other sciences. So, "Science and technology have a great role in honoring and appreciating nature and existence." However, "Science and conscience, technology and human ethics are not interconnected, unless mutual relations are established, noble goals cannot be achieved."

In fact, the existence and development of the nature that surrounds us and the living organisms in it are many aspects related to chance. This is not something that came up today or yesterday. After all, this is a fact recognized by the world's most mature natural scientists several decades ago. "The interrelationship between chance and the evolution (gradual development) of a living being is of primary importance in reality. This becomes even more clear if we consider the evolution of the total being itself as a random event in general. From this point of view, it is clear that T. Morgan highly values the connection between chance and living organisms and points out that the evolution of all beings can be evaluated as a random event. This corresponds to and complements our conclusion that the very life of a person, from his birth to his last breath, depends on chance. That is, not only human life⁶, but also the time of all living organisms from the beginning to the last moments depends on chance. This process also applies to genes in organisms. After all, there are millions of genes, and which of them affect each other is random. In other words, the transmission of genes from generation to generation external environment plays a greater role in this than heredity. Because "Inheritance determines only the general character of the construction foundation and the basic plan and rules, the rest is the work of the external environment and the conditions that surround us. If heredity determines the basis of the structure of the creature, a part of its formation, then the external environment is the main architect of it, i.e., the creation of the creature on a flat or high ground, in a rocky place or in a sandy place. It should be noted that the issues of genetics and heredity were also researched by Uzbek scientists and they contributed their fair share to the development of this field of science.

There is randomness in the relationship of any animal species with its external environment. After all, "The decisions they (animals) make in many cases depend not only on their complete knowledge of

⁵ Салимов Бахриддин Лутфуллаевич (2020). ФИЛОСОФСКОЕ РОЛЬ ДИАЛЕКТИЧЕСКИХ КАТЕГОРИЙ В ЖИЗНИ ЧЕЛОВЕКА. Историческая психология и социология истории, 13 (1), 111-119.

⁶ Salimov Baxriddin Lutfullaevich. The philosophical role of dialectical categories in human life. *Oriental Renaissance: Innovative, educational, natural and social sciences*. Volume: 1, Issue 6, 2021. -P.406-410.

the area they are in, but also directly on previous events and random successes and defeats." It is worth noting that chance plays an important role not only in the life of animals that have reached a certain age of maturity, but also in the fate of creatures that have just come into the world. For example, "The behavior of a larva (eggs of butterflies, flies, and worms) follows random messages about the environment."

In our article, we used the words living organisms and living beings. Therefore, we need to clarify something here. What do we mean by living organisms or living things? It can be understood in two different ways: first, man and the animal and plant world with him; secondly, man and only the animal world. In our view, it is appropriate to understand the first meaning, that is, the world of man and the world of animals and plants. True, some people ask how a plant is alive, what does a soul do in it? they can ask questions. We can answer them by saying that all plants have signs of life. They appear, develop, live and eventually die just like animals. In addition, we can say that "Plants are living beings. They also feel, grieve, rejoice. These feelings are reflected in their leaves⁷. Also, plants have intelligence and knowledge." True, they may not have a literal soul, but they have the signs of aliveness, presence, life that we noted above. Therefore, the majority of natural scientists understand the human and animal and plant world as living organisms or living creatures. Therefore, they always emphasize that the plant world also has many aspects that depend on chance. Of course, for the scientific knowledge of coincidences, the conditions should not be left out of consideration. External influences and internal conditions are the source of coincidences⁸. The conclusion is that "The element of chance is really present, and it shows its influence throughout the period of biological life from the beginning to the end."

CONCLUSION

Concluding our article, we can say that the category of chance has its own characteristics in biological life, and these characteristics are reflected in the following conclusions:

- the survival of humanity, as well as the animal and plant world, and the biological existence in general, depends in many respects on the scientific knowledge of coincidences in self-organization;
- probability creates conditions for the emergence of coincidence. In order to know the coincidence scientifically, first of all, it is necessary to fully know the situation at the beginning of the event, but in fact, we cannot fully know the nature and the universe and the coincidences in it. Because we cannot say that we know exactly the state of nature and the universe at the beginning. Also, the way of life of nature and society consists of accidents and necessity;
- Unpleasant accidents may occur as a result of human influence on nature. This is also true of heredity or genes, and chance increases the intellectual capacity of man, as well as necessity sets mankind on the right path;
- chance plays a decisive role not only in the life of man and society, but also in the existence of other creatures and plants in nature, and the process of mutation (in the sense of "unpremeditated") in natural science is somewhat similar to chance. After all, chance is an unplanned event, and we cannot say when, where and how it will happen. We can only know a coincidence after it has happened;

⁷ Салимов Бахриддин Лутфуллаевич (2020). Жизненный путь природы и общества состоит из цепи случайностей и необходимостей. *Colloquium-journal*, (24 (76)), 55-57. doi: 10.24411/2520-6990-2020-12159.

⁸ Salimov Baxriddin Lutfullaevich. The philosophical role of dialectical categories in human life. *Oriental Renaissance: Innovative, educational, natural and social sciences*. Volume: 1, Issue 6, 2021. -P.406-410.

- it is appropriate to divide the coincidence into types. Coincidences big and small, or tangible and intangible, visible and invisible. There are also detectable and undetectable and harmful and harmless accidents.

REFERENCES

1. Salimov Baxriddin Lutfullaevich. The philosophical role of dialectical categories in human life. *Oriental Renaissance: Innovative, educational, natural and social sciences*. Volume: 1, Issue 6, 2021. -P.406-410.
2. Салимов Бахриддин Лутфуллаевич (2020). ФИЛОСОФСКАЯ РОЛЬ ДИАЛЕКТИЧЕСКИХ КАТЕГОРИЙ В ЖИЗНИ ЧЕЛОВЕКА. *Историческая психология и социология истории*, 13 (1), 111-119.
3. Салимов Бахриддин Лутфуллаевич (2020). Жизненный путь природы и общества состоит из цепи случайностей и необходимостей. *Colloquium-journal*, (24 (76)), 55-57. doi: 10.24411/2520-6990-2020-12159.