

BIOLOGICAL SCIENCES

WHERE ARE WE GOING?

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Abstract

This article discusses a distant future that will come after the end of the global ecological crisis, that is, after the passage of time, measured not by historical standards, but by geological ones. It is widely believed that humanity will go extinct due to the deterioration of the environment caused by this crisis, to which it will not be able to adapt. The aim of this article is to substantiate the assumption that humans won't go extinct. Environmental problems (and not only environmental ones) have occurred and are occurring due to the disunity of people. People are divided because in some of them their social instincts are suppressed by biological instincts inherited from animal ancestors. These atavistic instincts encourage people to defend their interests when it is detrimental to society. If the suppression of social instincts by atavistic biological instincts continues, then the prediction of human extinction may come true. But the human psyche is evolving. Societies in which the proportion of citizens whose social instincts are suppressed by atavistic biological instincts is especially high are weeded out by natural selection, the units of which are societies. Societies with a lower proportion of such citizens have an evolutionary advantage. From millennia to millennia, the proportion of citizens whose social instincts are suppressed by atavistic biological instincts has been declining and will continue to decline. The energy of atavistic biological instincts has been decreasing, while the energy of social instincts has been increasing. Relations between people in societies have become and will continue to become more and more humane. This process will end with the cessation of the biological suppression of social instincts that separates people. This will allow people in societies to unite, and humanity, thanks to this, to adapt to the consequences of the global environmental crisis.

Keywords: extinction of mankind, evolution of human instincts.

Introduction

Life on Earth has existed for 4 billion years. During this time, there have been many global environmental crises. In the course of them, most of the species that existed then died out. But our ancestors (who first were prokaryotes, then became single-celled eukaryotes, then invertebrates, and finally vertebrates) always survived. The emergence of man has led to another global ecological crisis. It will last a time measured not by historical standards, but by geological ones. It is widely believed that this time man will die out. The purpose of the article is to substantiate the assumption that this will not happen. People will evolve and thanks to this unite. No changes in the environment can threaten people who are united, armed with reason and knowledge. Let us discuss what in our time hinders the cohesion of people and how their disunity is overcome by mankind and will be overcome by it in the future.

What hinders the cohesion of people

Mankind is not only a social system, but also a biological one. Biological systems have adaptability, that is, the ability to adapt. Mankind adapts with the help of adaptations, mainly not at the organismic level, but at the supra-organismal level - with the help of adaptations of societies. Social insects such as ants, termites, bees and wasps also adapt. Although the organization of their communities is different from the organization of human societies, there is something in common that unites us with them. It is common that their adaptability and the adaptability of humanity depend on cohesion. The adaptability of social insects

depends on their cohesion in communities, the adaptability of humanity depends on the cohesion of people in societies.

The cohesion of social insects arose in the course of evolution. They originated from species whose individuals lived alone (Kipyatkov, 1991). Man had ancestors who also lived alone. Therefore, in order to answer the question of how the cohesion of people has grown and will grow, it is of interest to consider how it grew in these insects. Probably, in the distant geological past, these insects were not as united as they are in our time. Some of them then, taking advantage of the benefits of membership in the community, used it as a source of livelihood, without bringing it any benefit. They were parasites of the community. Their behavior was atavistic, inherited from ancestors who led a solitary lifestyle. It reduced the adaptability of the community. Natural selection, whose units were communities, eliminated those in which the proportion of parasitic individuals was greater than in others. In the remaining communities, their share first decreased, and then they disappeared altogether. This dramatically increased the cohesion of the community. Social insects became cohesive in the distant geological past.

Man moved to a social way of life much later than them. People are just beginning to unite in societies. A significant part of them spend their energy on fighting fellow citizens. Its goal is to ensure its own well-being at the expense of the well-being of fellow citizens, regardless of the fact that this is detrimental to the whole society. This internecine strife reduces the energy that societies could use to strengthen the

security of their existence. The rallying of people goes by changing their non-inherited and inherited behavior. The non-inherited behavior aimed at increasing the cohesion of society consists in observing the prescriptions of one or another religion, one or another ideology, one or another unwritten and written laws. Non-inherited behavior is the result of the work of the conscious sphere of the psyche. Non-inherited behavior is the result of the work of the conscious sphere of the psyche. The unconscious sphere of the psyche is controlled by instincts. A person has social and biological instincts (Shevtsova, 2015). Social causes the need to be useful to people and society (Astaurov, 1971, Shevtsova, 2015). Biological, or vital, instincts cause a desire for self-preservation, for nutrition, for reproduction, for the protection of the territory. Biological instincts are inherited from animal ancestors. In some people, the energy of social instincts is greater than the energy of biological ones. The motivation of their behavior is the satisfaction of the need to bring benefits to people and society. They use aggression towards members of their society to defend not their own interests, but the interests of their fellow citizens. In other people, the energy of biological instincts is greater than the energy of social ones. The motivation of their behavior is the satisfaction of their needs. To satisfy them, they can use aggression against their fellow citizens. They satisfy their needs even if it is detrimental to society. The ratio of the energy of these two groups of instincts in each person is genetically determined and inherited (Astaurov, 1971, Shevtsova, 2015).

A person has an instinctive need for aggression (Beron and Richardson, 1994). Lies are one of its forms (Tarasov, 2007). It is used in business, trade, advertising. There is an assumption that the reason for the tendency to corruption is hidden aggression (Gavrina, Zhuravlev, Kotova Nestik. and other, 2017). In any socio-economic formation, some people live richly, others live poorly. Those in government are always faced with the task of suppressing attempts to change the status quo by force. Government and aggression are inseparable from each other (Shevtsova, 2015). Human aggression towards fellow citizens was inherited by him from animal ancestors who lived alone. With its help, ancestors defended themselves from enemies, including individuals of their own species. Aggression in them increased the reliability of the existence of an individual. In humans, aggression directed at fellow citizens is a harmful atavism. It divides people in society and thereby reduces its adaptability and reliability of existence. And the reliability of the existence of a person depends on the reliability of the existence of society. Thus, the cohesion of people in society is hindered by the suppression of some of their social instincts by atavistic biological instincts. But humanity, as said above, has adaptability. It has overcome and will continue to overcome this obstacle on the way to the growth of the cohesion of people, since the reliability of the existence of mankind depends on their cohesion in societies. Let us discuss how it gets rid of people whose social

instincts are suppressed by atavistic biological instincts.

Endogenous decline in the reliability of the existence of societies

The first people on Earth lived in tribes. Tribes in which the proportion of people with suppressed social instincts was high perished. Tribes had an evolutionary advantage, in which the proportion of such people was low, and the proportion of people with high energy of social instincts was high. Due to natural selection, the units of which were tribes, among the tribes that continued to live, the proportion of close-knit tribes grew (Turchin, 2010). In humans, the energy of social instincts increased. People became more and more human, and the adaptability of the tribes and the reliability of their existence became ever higher.

The transition to life in states made a person more secure. This has resulted in humans, whose social instincts are overwhelmed by atavistic biological instincts, gaining an evolutionary advantage. They are more successful in taking care of themselves and their children than people whose social instincts suppress atavistic biological instincts. Among the children of those who have suppressed social instincts, the proportion of people with suppressed social instincts is increased. Mutations that enhance the energy of atavistic biological instincts are supported by natural selection, the units of which are individuals, while living in the state. The proportion of people whose social instincts are suppressed grows during in the state. From generation to generation, the energy of social instincts in people living in society decreases, the energy of atavistic biological instincts increases. Relations between people are becoming less and less human, the reliability of the existence of society is decreasing and it ceases to exist (Tarasov, 2001).

The role of the degradation of societies

This degradation of society is analogous to the aging of the organism. It also ages because of the internal processes taking place in itself, and these processes also reduce the reliability of its existence. The aging of the body has an adaptive value. To keep up with environmental change, populations need to change. The aging of an organism shortens its lifespan and thereby accelerates natural selection, that is, the evolution of a population. And the acceleration of evolution allows it to keep up with changes in the environment. Mankind, in order to keep up with the changes in the environment, also needs to change. The shorter the duration of the existence of societies, the more effective natural selection, the units of which society, the faster the evolution of mankind, the more successfully it adapts to changes in the environment. If societies did not degrade, then the duration of their existence would be longer. Human evolution would have been slower. This would make it difficult for them to maintain the reliability of their existence in a changing environment.

In gerontology there is the concept of "senile involution". It denotes the replacement of cells that performed the functions of organs (heart, lungs, etc.) with connective tissue cells that are not able to perform them. The older the body, the more of its cells are

replaced by connective tissue cells, the worse its organs work, the weaker its adaptability, the lower its ability to ensure the reliability of its existence, and the more likely it is to die from old age. The analogues of the body's cells that ensure the functioning of its organs are citizens whose social instincts suppress atavistic biological instincts. Analogues of connective tissue cells are citizens whose atavistic biological instincts suppress social instincts. The older a society is, the more of its members are replaced by those whose atavistic biological instincts suppress social ones, the lower its adaptability, the lower its ability to ensure the reliability of its existence, and the more likely its death. Endogenous degradation of societies (tribes) was absent in the pre-state period of human existence. During the state period of its existence, it provides a reduction in the duration of the existence of societies, accelerates the evolution of mankind and increases its adaptability.

How mankind overcomes obstacles on the way to the cohesion of people

The adaptation of mankind to the deterioration of the environment goes through natural selection, the units of which are society. More likely than others, because of wars and environmental disasters, societies are dying in which a high proportion of people with suppressed social instincts. In the societies that have survived, the proportion of people with suppressed social instincts is decreasing. From millennium to millennium, the proportion of people with suppressed social instincts has fallen and will continue to fall, while the proportion of people whose energy of social instincts is high has grown and will continue to grow. Relations between people have become and will continue to become more human. The customs of cannibalism and human sacrifice, which at one time seemed natural, are unacceptable in our time. Slavery was replaced by less cruel ways of using the fruits of other people's labor. Gladiator fights have been replaced by football. Views imbued with philanthropy are spreading. But their implementation is slow going.

The human psyche is evolving. But its evolution is not on a historical scale of time, but on a geological one. It will end with the fact that the suppression of social instincts by atavistic biological instincts in humans will completely stop. Mankind, freed from those whose social instincts are suppressed by atavistic biological instincts, will not be able to threaten the consequences of the global ecological crisis. Mankind will not die.

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