

# Agricultural industry students ecological worldview formation

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**Abstract.** The authors focus on the socio-cultural aspect of "Russian cosmism", according to which this trend laid the foundations of the ecological worldview and a new culture of human civilization sustainability. The article is developed for the students specialized in agriculture. The purpose of the article is to\* identify and show the value foundations of this new culture of sustainable development. The methodological basis is the analysis of the texts of representatives of Russian cosmism and their interpretation in modern literature. It resulted in a fundamentally new understanding of the laws of the "nature-society" system in the anthropological dimension. In the modern world, wars remain a powerful factor in the geopolitical regulation of planetary processes. They accompany humanity from the moment of its origin. It must be admitted that so far our history, the history of wars, our culture, in many of its bases, are generated by military activity and regulated by it, which is confirmed by a public opinion and attitude to nuclear weapons in the modern world. An ecological worldview and the ideas of sustainable development determine the worldview of agricultural students. Their personality is formed in conditions of conquering instability and global contradictions, gaining the experience in overcoming the planetary and universal inconsistencies.

## 1 Introduction

The basis for the ecological worldview formation of agro-industrial faculties students are the ideas of "cosmism". "Cosmism" is a fairly broad field in the history of civilizational activity associated with the study and transformation of nature by specific technical means and spiritual ones. The origins of cosmism are in the cosmological myths of antiquity. It is myths that are a natural stage in understanding the world in the form of saturated emotional images that seek to determine between sensuality and genuine rational thought. Hegel in lectures on the history of philosophy notes that the fantasizing mind makes the essence be its subject. At the dawn of the formation of class society, human thinking felt the importance of overcoming the discord of the human spirit with nature on the basis of penetration into the depths of space.

The term "Russian cosmism" itself was used in the Soviet philosophical thought by A. Ogurtsov, F. Girenk, N. Moiseev, S. Semenova, N. Gavryushin and others, which testifies to its intellectual power and influence on subsequent generations, and modern scientists raise the question of the emergence of a new culture and format of sustainable development [1-8].

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Currently, there are quite a lot of research papers devoted to the genesis of the term "cosmism" and "cosmic philosophy". V. F. Odoevsky and V. S. Solovyov can be considered early representatives of "Russian cosmism". Its founders were N. F. Fedorov and, above all, K. E. Tsiolkovsky and V. I. Vernadsky. Outstanding representatives of the cultural concept can be considered P. A. Florensky, A. L. Chizhevsky and many others. Undoubtedly, cosmism is not a purely Russian phenomenon, such outstanding thinkers as P. Teilhard de Chardin and J. O. Neill deserve respect, as well as many other figures of world philosophical thought who objectively belong to the tradition of cosmism. In general, Russian cosmism is quite well understood in modern philosophical thought, structurally, functionally, methodologically and methodically. We will focus on the cultural aspect, according to which "Russian cosmism" has turned into a current that laid the foundations of a new culture of human civilization. Our task is to identify and show the value foundations of this new culture.

However, the assessment of values has always been polemical and highly dependent on time, the specifics of the culture itself and the social position of the thinker. We believe that the culture development of cosmism will open up a new future in rethinking the patterns of planetary processes, meeting human needs, overcoming resource constraints and opportunities, according to the natural rhythms of nature. The understanding that our planet is a home for future descendants is connected with "Russian cosmism".

## **2 Materials and Methods**

The methodological basis of our research is a qualitative analysis of V. Solovyov's creativity with the agricultural students and a quantitative analysis of surveys conducted by WCIOM.

By unity, we mean a universal worldview based on the unity of the entire universe at the substantial, deep structural and natural levels. The latter undoubtedly creates conditions for human penetration into space and presupposes the unity of nature and man, the unity of all forms of cognitive activity, the unity of natural sciences and socio-humanities ones.

A bright representative of the unity philosophy V. S. Solovyov justified the ontology of the supersensible, metaphysical basis of human existence. His social philosophy is based on the concept of an organic whole, which is understood as a very complex formation, as a single living organism, which includes many internally interconnected elements. An essential feature of organic wholes is that their parts, the elements of the sphere are not in an external forced, but in an internal free connection, representing synthesis. This means that this connection is not an aggregate, but a harmonious social-historical integrity, in which individual parties lose their specificity and only together represent a special quality of what actually exists.

This methodological principle in relation to society allows us to consider it as a social organism in which all sides, moments, processes are interconnected and represent a certain hierarchy, where the higher links do not replace the lower ones, but absorb them into themselves as an irreplaceable part. This approach emphasizes the complexity and versatility of social reality and draws attention to the fact that it cannot be described simply by inductive methods. A special role for the cognition of the social is played by the awareness of the fact that there is no strict determinism of the processes of social life and human life. Human society is a real organism and it is in this capacity that it acts as a subject of cognition and historical development [9-10].

At the center of V. Solovyov's social concept there is the analysis of the history of society as an integral developing system, including static and dynamic elements that are the real causes of change. According to the thinker, in reality everything is in process, i.e. there are no unconditional boundaries between different spheres of being, there is nothing unrelated and separate in everything. The basis of cognition of reality is: conscientiousness, subordination of the mind to the laws of the objective world, the principle of integrity (unity),

historicism, the development of polar definitions (the "supreme law of logic"), and the method of philosophy is dialectics.

According to V. S. Solovyov, the knowledge of the world is carried out by a man in the philosophical, scientific, artistic, religious forms, but not by a man, not by the external world, but by the third force, which is the divine world, it should give human development an unconditional content. The Russian people are the bearer of this third force and must bring a higher power into humanity, as a result of which society reaches the state of a "universal human organism". It is the universal integral life that is the bearer of universal culture, and its basis is good, as the meaning of human life.

### 3 Results

In the modern world, war remains a powerful factor in the geopolitical regulation of planetary processes. However, war has accompanied humanity since its inception. It must be admitted that until now our history is practically the history of wars, our culture is in many of its bases generated by military activity and regulated by it, which is confirmed by a public opinion poll on the attitude to nuclear weapons in the modern world. Despite the fact that since 1962 the Soviet Union initiated the process of nuclear disarmament, the overwhelming majority of Russians surveyed believe the following:

**Table 1.** Opinion of Russians about nuclear weapons

<b>Percentage of respondents</b>	<b>Opinion of respondents</b>
71%	it is necessary to preserve the potential of weapons that ensures the security of our state;
16%	it is not necessary to preserve it;
83%	Russians did not support the idea of eliminating nuclear weapons in the next 3-5 years;
15%	Russians support the buildup of the nuclear arsenal;
58%	it is necessary to preserve the former potential;
10%	it is necessary to reduce the former potential;
5%	Russians are for total elimination;
13%	t is difficult to answer.

**Table 2.** Opinion of Russians about the preservation of the state's nuclear arsenal over the long term

Percentage of respondents	Opinion of respondents
40%	it is necessary to preserve fully;
17%	it is not necessary to increase it;
13%	it is not necessary to reduce it.

Due to the survey of WCIOM in 2016 based on the telephone interview method according to the stratified two-base random sample of stationary and mobile numbers. It was attended by 1.6 thousand respondents over the age of 18 from 95 Russian regions.

Back to the historical background, we see that antiquity, the Middle Ages, up to the world wars of the 20th century, humanity could not do without mass killings. And even after the Second World War more people were killed in local conflicts than in the most massive war in history. There is very little time in the world history without wars.

War seems to be something deeply immanent in the culture. After all, mythology, epic, folk heroes are full of battles and fights. Religions are built on the struggle of good and evil. "War is the father of everything. The king of everything" (fragment 53) as Heraclitus says. Hegel considers war to be difficult but a necessary activity that "strengthens the spirit of the people".

War arises from the opposition of We-They, and by this means society achieves the goals of different order, but of the same meaning – from subjugation, exploitation and acculturation to the complete genocide of "them". Only not so long ago the thinkers and the public began to try to rethink these foundations of culture. One of the first and most well-founded works on this topic is the "Treatise to Eternal Peace" by I. Kant. There he proposes to introduce a complete ban on war and formulate the foundations of a culture without wars.

As you know, the individual death is "invented" by nature as a side of sexual selection, where the death of an individual is the pledge of general and special life in the form of a biological species. War in the history of mankind is presented as a means of survival of cultures, not individuals. The moral foundations of culture are presented as purely "private". In a culture, in people, in a state an individual (a monarch, a leader) or a social group is "above the fray", personifying one of the parties of the conflict. "Ah, if kings had fought!" exclaims Achilles in Homer's Iliad. In the modern world the most developed countries have deployed and systematically support the functioning of orbital groupings (OG) of spacecraft (SC) that implement the information component of almost the entire spectrum of military operations. Space becomes a means of warfare, most of the information is transmitted over space radio lines.

It must be admitted that certain advances towards a world without global wars can be observed in modern times, the guarantor of which is nuclear equilibrium. But fundamentally different principles of the existence of civilization are still far away. Scientific and technical development simply complement the ancient scheme of mutual destruction for the sake of "great" goals. On the battlefield, high-tech weapons kill, other "activity" immediately acts – with the help of the same modern technologies, they try to pull out the victims, heal, sometimes resurrect [11-12].

## 4 Discussion

According to the Nikolai Fedorov's point of view in his "The Question of brotherhood ..." the scientist discusses the common world ideals and values that do not accept national borders, the causes of the non-fraternal, hostile state of the world and the means that will contribute to the kinship recovery. He is the initiator of the ethics of salvation from war, through the knowledge of everything and everyone, scientists and non-scientists, secular and spiritual personalities. He assessed the exhaustion, devastation and predation of a man in relation to nature negatively. He viewed the invention of weapons as a universal means for the mutual destruction of civilizations negatively. Fedorov especially emphasized the importance of the means of communication, as the pride of a modern man.

Fedorov's answer to Nietzsche: "He wanted to go beyond good and evil, but he saw death there, and there was life there". Fedorov's supramoralism takes morality to a new level and ends it, but in a positive way. And not negatively. The most terrible acts in morality are irreversible. The rest can be redone, rethought, forgiven. If there is no irreversible thing – death, then the rest turns into a kind of ritual, a convention, an annoying necessity that never turns into a fatal one.

The obvious danger to humanity is war as a kind of impersonal force that divides peoples and individuals. This force uses the West and the East for the purposes of its "blind" necessity as a way to embody the will to violence, the will to power and the will of absolute domination.

Fedorov relies on the following cultural patterns:

1. Culture is created by some people and inherited by other people. Each person undergoes a long process of socialization and upbringing for perception and interaction in the culture. If people were immortal, culture would rise to a new level.

2. Fedorov points out the difficult feasibility, but not the complete impossibility of the project of reviving all the deceased. It should be noted that it is better to define human activity in culture as not "the creation of a second nature", but the removal of potencies from natural patterns in accordance with an ideal vision and purposeful activity. Thus, the more extropical a person's activity is, the more cultured and humane it is.

3. In history, you can find examples, even if not so drastic "alteration" of culture, but qualitative changes. Mastering morality, mastering the productive economy, writing and new ways of accumulating information – somewhere stages, somewhere things that are not similar to each other. Qualitative restructuring of culture on the basis of Fedorov's bold idea seems to be quite a logical link.

Even if it is impossible to implement Fedorov's ideas, the social values based on them will bring humanity to a new level. Are all ideologies and religions real and not utopian? There are certain cycles of the human spirit development that reject themselves into the knowledge and skills of the human community. They are embodied in the entire scope of world culture. It is the value and integrity of one individual and community in the richness of world history.

The same ideas are reflected in the works of almost all Russian cosmists and are more expressed in the works of V. I. Vernadsky, who was one of those several scholars within the late XIX - early XX century who made a perfect combination of humanitarian and natural science and approaches in the study of the object of science. The narrow specialization, which was developing so rapidly in science at that time, did not seem to touch him. For V. I. Vernadsky the organic combination of natural science analysis with the humanities was the norm. Namely, humanitarian analysis opens the way to understanding humanistic values. Even for modern researchers, at times, this acts as an ideal. Under the influence of the idea of the noosphere, which was increasingly taking possession of him, V. I. Vernadsky became convinced of the fallacy of the rigid dilution of the laws of animate and inanimate nature, the laws of nature and society. The fact of the appearance of the noosphere makes him pay

attention to a number of problems: the qualitative composition of the scientific community, the principles of interaction between scientific communities and society, freedom of thought in general and scientific in particular, the moral level of members of the ruling elite. Academician Vernadsky singles out the functioning of a free international of scientists as a condition for the existence and development of the noosphere. In particular, modern scientists are faced with the task of the near future of the creative direction of the organization of the noosphere, from which they cannot depart, since the steady growth of scientific knowledge directs them to this. There is another circumstance that has not received a clear expression, but which is clearly visible. This is the internationality of science.

Scientists are morally responsible for using the results of science for destructive purposes for civilization, contrary to the idea of the noosphere. But the unity of scientists as a prototype of the unity of all people is a moral value. At the same time, the unity and mutual cooperation of all people are a law of nature, and the laws of the formation of the noosphere remove the differences between the laws of nature and society. Vernadsky considered war to be an antinoospheric state of the world. By getting involved in war, people become destroyers, while their task is different not to use their mind and their labor for self-destruction.

The author of "cosmic philosophy" and "astrosociology" K. E. Tsiolkovsky in the book "Monism of the Universe" made an attempt to present the problems systematically, including social ones, characteristic of the beginning of the "space age", about the place of reason in the world as a whole. From the point of view of K. E. Tsiolkovsky humanity is very young compared to the eternal Cosmos, but by virtue of the earthly laws of existence, it must perish and only the connection with the world Cosmos opens the way for a man to immortality. There are three potential immortality of human civilization factors made by Tsiolkovsky: the intelligent beings reproduction expansion, the space civilization scientific and technological progress unification into a single whole. Humanity is called upon to improve its own nature with the endless improvement of the environment. The main questions that philosophy should solve are questions about the meaning of a life and the immortality of a man. The thinker emphasizes the active role of a person in his own life and fate and the life of society.

The solution of all questions about the social organization acquires a value emphasis. In the atmosphere of a value attitude to the cosmos, a person acquires a cosmic being, his highest and true state, in which humanity gets rid of such forms of life that bring suffering. The strategic methodological task in the cognition of social reality is connected with the study of the laws of the fulfillment by mankind of the space mission, i.e. the settlement and development of the Milky Way. Thus, the most important merit of K. E. Tsiolkovsky is that in his socio-philosophical concept he asserts the need for practical solutions to the most important tasks of civilization related to its survival, therefore his social philosophy becomes "cosmic ethics".

The central part of P. Florensky's Christian anthropology, given in the work "The Pillar and the Affirmation of Truth" is the doctrine of a man, which is based on the data of modern science. He believes that the basis of the world is the principle of thermodynamics, the law of entropy, universal equalization. Otherwise, this law can be called the law of increasing randomness, the law of degradation. The world, presented to itself, is chaotic and degraded, can only move to a lower level of its existence, because there are no forces in it that are able to resist this degradation. Moreover, P. Florensky believes that there are no reasons that transfer the world to a higher level, and self-movement and self-development of the world whole is impossible. However, the world itself is arranged in such a way that there is a highly organized complicating, unifying in it. The highest example of this kind is a man. It is in a man that P. Florensky sees a force opposing the process of degradation of the world and a force that saves the world. Today, science is actively developing his ideas that a man himself is the arena of the struggle between natural chaotic forces and cosmic ones [13-16].

Only through overcoming the microchaos one can overcome the macrochaos of nature and society. At the heart of overcoming microchaos there is a culture that is focused on the cult, on absolute values, because a culture oriented otherwise comes to a dead end, where its chaotic and death begin. Absolute values are the basis for the rise of culture, they exclude sin, which is the state of the human soul when its discord and disintegration are committed. Thus, the cognition of social reality is aimed at finding ways to overcome the chaos that has a destructive effect on every person, the laws of microcosmization of personality open the way to the macrocosmization of society and the Universe. P. Florensky raised a very deep and urgent problem of good governance of society and the world on the part of a man, and he emphasizes the active role of a man and the influence of a man on society, and also the entire environment. It is important to note that the thinker warned against arbitrariness in relation to nature, considering it the main factor in the prosperous existence of society and the individual.

## 5 Conclusion

To form the agricultural students worldview it is important to master the provisions of the new culture developed by Russian cosmism, which can be presented in the following:

First, the philosophy of cosmism is dominated by the expansion of human cognition to the scale of the entire Universe. The personality itself acquires cosmic features and acts as a microcosm, the ordering of which opens the way to the harmonization of the entire universe.

Secondly, the works of Russian philosophers clearly show a tendency to cognize social reality and natural reality as filled with higher values and ideas of spiritual culture.

Thirdly, a modern man loses his sense of responsibility to other people, descendants, ancestors, and nature. A person should refuse to use the world only as a footstool of his own assertion, a means of realizing consumer momentary goals.

Fourthly, it can be argued that cosmism in Russia at the turn of the XIX – XX centuries resisted simplified ideas about the essence of the relationship between nature, society and culture, which formed the basis of the intellectual life of the public who got acquainted with the works of O. Comte and other representatives of positivism.

The interest in moral and religious issues, moral self-improvement of a person, the ideal of social justice and the improvement of social structure are based on the study of the noosphere. Overcoming the triumph of enmity in the modern world, which includes not only external contradictions, but also internal enmity of all kinds, turning the planet into a battlefield, which does not subside, only flows from one form to another.

Fifthly, the transition to the modern vision of science is traced and the image of a new cultural tradition is formed, which underlies the modern humanistic scientific style of thinking, realized in the experience of repaying aggression, maintaining fraternal relations of cooperation between people.

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