
Global Trends

Posthumanism vs. Transhumanism: From the “End of Exceptionalism” to “Technological Humanism”

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Abstract—Posthumanism and transhumanism are often identified. However, modern researchers indicate the fundamental difference between these intellectual schools. The fundamental idea of posthumanism is the rejection of biological, ethical, and ontological anthropocentrism. Transhumanism focuses on changing and improving natural human characteristics through biological, technological, and cognitive modifications. While posthumanism draws attention to the crisis of humanism, transhumanism is the latter’s heir. Scientific and ethical consequences of posthumanism, as well as the sociocultural potential of transhumanism, are considered in this article. Posthumanism carries risks of shifting the value focus from man to other objects, which in the long term can lead to a critical decrease in the value status of man. Transhumanism has the potential to preserve man as an effective economic and cognizing agent. It is suggested that Russian society has a sociocultural potential for moving towards “technological humanism.”

Keywords: posthumanism, transhumanism, antihumanism, culture, technological humanism

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INTRODUCTION

Posthumanism and transhumanism are often equated, but researchers point out that it is a mistake to make such a comparison: posthumanism and transhumanism designate different intellectual schools that contradict one another in fundamental issues [Ferrando, 2013]. Transhumanism works with man, his natural limitations, and potential options for his removal. Posthumanism, in turn, expands the very space of agency by including nonhuman objects and rejecting the binary oppositions human–nonhuman, culture–nature, or humanism–antihumanism [Kriman, 2019].

Posthumanism deprives man of a privileged ethical, legal, and ontological status, placing him on par with other objects of the world. The conceptual foundations of posthumanism are the following: scientific discoveries that brought humans and other living beings closer together, which led to blurring of the boundaries between them; development of technologies, in particular, artificial intelligence; deformation of ideas about man in postmodern philosophy. The ideological foundation of posthumanism is the rejection of ethical and biological anthropocentrism [Braidotti, 2013]. Transhumanism, in turn, has inherited the ideas of the Age of Enlightenment and focuses on man, working on a program to improve and change

human characteristics through biological, technological, and cognitive modifications.

While posthumanism implies a rejection of anthropocentrism, transhumanism either retains the central position for man or does not problematize man’s position among other objects. Transhumanism can be viewed as a “reinforcement” of humanism, while posthumanism draws attention to the crisis of humanism [Ranisch and Sorgner, 2014]. Transhumanism attempts at overcoming human intellectual and physical limitations, while posthumanism tries to overcome humanism [Jansen, et al., 2021]. This article discusses the scientific, ethical, and metaphilosophical foundations of posthumanism, as well as the sociocultural potential of the ideas of transhumanism.

SCIENTIFIC FOUNDATIONS AND CONSEQUENCES OF POSTHUMANISM

One of the consequences of the development of the science of life is that features that were previously considered species specific for humans are attributed to other objects. As an example of this trend, one can cite the “emancipation of consciousness”: in the 20th century, some animals were endowed with higher mental functions, then discussions began about the actualization of consciousness on an artificial carrier and the possible presence of consciousness in plants [Segundo-Ortin and Calvo, 2021]. A natural result of this process is a modern version of panpsychism, which is accompanied by a discussion of the protophe-

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nomenal properties of the world [Chalmers, 2013]—the expansion of the space for the spread of consciousness in the world has led to the endowment of things with consciousness. Posthumanism actualizes this process through the idea of the need to abandon anthropocentrism due to the obvious “end of human exceptionalism.” However, this approach limits the study of some phenomena, for example, consciousness.

The psychophysical problem¹ indicates an “explanatory gap”: at present, there is no generally accepted idea of how consciousness in the form of subjective experiences is inscribed in the world of physical interactions. The problem of the connection between the mental and the physical is currently so complex that some scientists declare its fundamental insolubility and point to the probable cognitive closure of man in relation to the mind–body problem [McGinn, 1999].

A consequence and one of the elements of the “hard problem of consciousness” is the lack of generally accepted ideas about the function of consciousness in modern science—we do not know what consciousness does and why our life does not pass entirely in the dark [Van Gulick, 2021]. What is the evolutionary reason why the physical processes in the brain are accompanied by the “light of consciousness,” that is, subjective experiences? There is no answer thus far. Therefore, science has vague ideas about the function of consciousness and equally vague ideas about the nature of the connection between consciousness and matter. It remains simultaneously the phenomenon closest to everyone and the main scientific mystery.

However, if the problem of consciousness is so hard, then what are the purely scientific foundations of posthumanism, which proposes to expand the anthropological space at the expense of other objects? If we do not know what function a certain cognitive module “hidden” from the external observer performs, how can we endow other animals with this module, or even more so artificial objects? J.-M. Schaeffer claims that human exceptionalism has come to an end, but in recalling the problem of consciousness, he points out that there is an urgent need to wait a bit with the discussion about conscious states [Schaeffer, 2010]. However, in this case, it is completely unclear why one should not “wait” with the very statement of the end of human exceptionalism, which, according to one of the most likely scenarios, is just a consequence of the species-specific nature of consciousness.

The bat uses echolocation to navigate in the dark. Echolocation is a very interesting evolutionary device that arose in some animals. Do dogs have this ability? This question can be confusing. Most people will answer it in the negative. However, why do we tend to think that dogs do not have echolocation? The most

obvious answer would be that dogs simply do not need the function that echolocation performs in bats for their survival as a species; thus, we assume that they do not have it. If dogs cannot echolocate, then why should they have consciousness? What grounds do we have for endowing other objects with some property hidden from the external observer if we do not know how it manifests itself in the behavior of the object? If bats were intelligent enough to transfer their characteristics to other animals but not intelligent enough to understand why they themselves need echolocation, they might think that humans also have this ability, which is a mistake.

Consciousness can be a species-specific feature of humans. In this case, posthumanism is an unreasonable expansion of the anthropological space. We may not like the idea of human exceptionalism for some ethical reasons, but from a purely scientific point of view, this is not grounds to deny human exceptionalism. Other animals may not have the function of consciousness, and consciousness itself may be a feature of humans. As long as the function of consciousness remains undefined, there are no rational grounds for bestowing it on other objects. Accordingly, it is still possible that there is a fundamental difference between man and other objects of the world.

Thus, posthumanism with its vector to expand the presence of consciousness in the world—up to the animation of inanimate objects—turns out to be a form of animism and contradicts science. The position that humans do not have a certain unique property because we are comfortable with the rejection of anthropocentrism can be called ethical and political but by no means scientific. Therefore, posthumanism cannot be considered a scientific doctrine; it is an exclusively ethical or political concept. Let us turn to the purely ethical foundations and consequences of posthumanism.

ETHICAL FOUNDATIONS AND CONSEQUENCES OF POSTHUMANISM

The author divides ethical consequences into two groups:

- (1) decrease in the value status of man due to the appearance of nonhuman subjects of morality;
- (2) decrease in the value status of man in connection with socioeconomic changes.

Nonhuman subjects of morality. Here we mean the inclusion of other animals and plants in the space of morality. Discussions are beginning about the ethical status of artificial intelligence and whether machines have the potential to be moral agents [Bostrom and Yudkowsky, 2011]. Such an expansion of the ethical space fixes the responsibility assumed by man for the environment and is certainly positive. Caring for one’s habitat is the result of a rational attitude towards one’s own long-term goals: by caring for the world, man

¹ In the modern explication, “the hard problem of consciousness” [Chalmers, 1995].

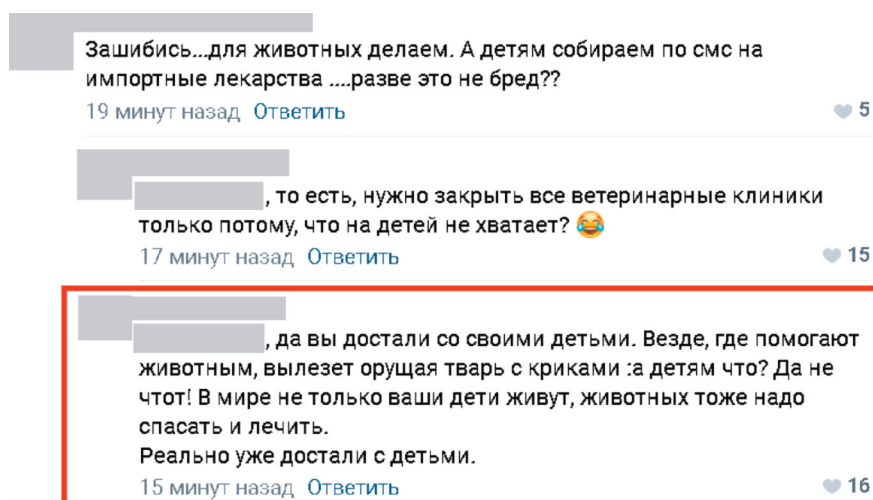


Fig. 1. Discussion of the creation of a vaccine for animals in a social network.

invests in his future. However, the critical expansion of the space of morality entails a severe value deformation, which can have an extremely negative impact on the status of humans. If we assign the status of moral agents to objects other than humans, then the “ethical focus” naturally shifts away from humans: they have fewer ethical privileges. This process is normal when it comes to the boundaries of permitted human behavior. However, it is necessary to clarify what “fewer ethical privileges” means: how much fewer?

Currently, there is a trend towards ethical anthropomorphism. We are already ready to perceive the computer as an equal moral agent and discuss the moral privileges of the machine—humanity is drawn in this direction by the development of technology and the associated cultural shell. In addition, society is ready to accept other animal species as equal moral agents due to the development of life sciences, which are gradually blurring the line between humans and animals (for example, [Olson, 2015]). However, in the long term, moving in this direction can be dangerous; thus, we should pay attention to possible risks.

Let us give a short illustration. On one of the social networks, the author paid attention to a discussion of the news about the creation of an antiviral vaccine for animals. The first comment was, perhaps, not entirely correct but innocent and quite standardly oppositional for the Russian-language Internet, a remark that fixes a position with which it is equally easy to agree or disagree: “...we do it for animals. Yet we collect money for children by SMS for foreign medicines.... Isn’t that nonsense?” (Fig. 1). However, we are interested in the commentary to this remark, which has a distinctly negative and, moreover, aggressive character: “Pissed with your children. Wherever animals are helped, a shrieking toad comes out with cries, ‘What about the children?’ Nothing! Not only your children live in the

world, animals also need to be saved and treated. Sick and tired of children.”

In the author’s opinion, this example illustrates a trend towards the expansion of the space of ethics, which leads to a shift in focus from humans to other objects, up to a critical decrease in the ethical status of man. Note that such an aggressive position is not the opinion of one person but a sign of a growing trend. It is likely to intensify under the influence of sociocultural processes that accompany the spread of posthumanistic thinking: posthumanism easily turns into antihumanism. Perhaps we are not yet sufficiently aware that giving animals the status of moral agents equal to humans will lead not only to treating animals as humans but also to treating humans as animals. And if things become humans, then humans become things.

Value superstructure over the economic basis. The rapid development of technology—in particular, artificial intelligence—accelerates the processes of industrial automation. This, in turn, raises the question of the role of man in the economy of the future: if artificial systems can more effectively perform the functions of man, then what place will man, as a potentially inefficient economic agent, take in the economy? The acceleration of innovation and robotization has led to a new round of discussion of technological unemployment—a decrease in the number of jobs due to technological changes.

Optimistic views of the problem point to compensation effects: although technological innovation may indeed lead to job losses, these effects are temporary, and in the long run technology will “compensate” for job losses through the emergence of new jobs and new products. Optimistic scenarios draw attention to the fact that a decrease in demand for labor is an exclusively theoretical possibility [Korenevskii, 2021].

Within the framework of such scenarios, recommendations are given on how to prepare for a future transformation, for example, in the form of learning new skills [Zemtsov, 2018]. Presumably, robotization will not lead to the exclusion of man as an economic entity from the economy but will only change the structure of competencies, as has happened more than once in history. In other words, the current problem of technological unemployment is a standard problem of current skills and professions, which will be solved in the same way as in the past.

However, modern studies question the theory of compensation [Vivarelli, 2007]. Some authors express concerns that new technologies may make human labor redundant [Acemoglu and Restrepo, 2018]. At the same time, according to some forecasts, by 2030, about 800 million people may lose their jobs because of automation.² Whether this process will be offset by compensation effects is an open question. Note that this is not at all about replacing only those professions that are associated with physical labor or relatively simple actions according to an algorithm: it is also about replacing workers with artificial intelligence in specialties that are currently considered intellectual.³

Optimistic positions regarding the future of interaction between man and artificial intelligence, which recommend changing education and compensating for the development of technology with new skills, do not take into account that human capabilities are limited. In a long-distance race, a machine will be more effective than man in everything or almost everything because in the long run the artificial is functionally more effective than the natural.⁴

Of course, the very possibility of freeing man of routine work (and of work in general) cannot be con-

sidered either a fundamental problem or a negative phenomenon. On the contrary, life without unnecessary work is an image of the desired future.⁵ However, it is highly likely that the economy of the future will not need man, which raises the question: Why save man at all (and even more so improve the quality of human life)? This extremely tough and unpleasant question is likely to be raised by economic expediency and aggravated by the loss of man's status of exceptional value.

Economic development tends to increase efficiency, that is, to automate production. Accordingly, if in the long-term man is redundant for economic development, then posthumanism corresponds to the economy of the future as a value foundation. The point is not only that man will not be needed as an effective economic entity; he is losing the status of a valuable object in principle, which is intensified by the loss of the position of the most complex object in the world.⁶ Biology and psychology have made him predictable, and technology has made him controllable. The thing becomes an object much more complex and valuable, as well as less predictable. In other words, effective economic development benefits from shifting the value focus from humans to other objects (including artificial ones). As a result, posthumanism becomes a superstructure over the emerging economic basis: as technology develops, capital will be less and less interested in man; thus, posthumanism becomes the ideology of a new stage of capitalism.

THE METAPHILOSOPHICAL ASPECT OF POSTHUMANISM

Posthumanism, with its dehumanization of discourse and the deprivation of man of privileged value status, is not only a consequence of the development of science and technology but also a response to post-modern concepts such as the death of the subject [Barthes, 1994], the collapse of metanarratives [Lyotard, 1998], and the historical conditionality of the concept of man [Foucault, 1994]. What is the value of a face inscribed on the coastal sand if in a second it is washed away by a wave? Very low. However, bracketing off

² J. Manyika, S. Lund, M. Chui, et al., "Jobs Lost, Jobs Gained: What the Future of Work Will Mean for Jobs, Skills, and Wages: Report," McKinsey Global Institute, November 28, 2017. <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>.

³ For example, the software development community is actively discussing the possibility of replacing the programmer with a program. See, for example, "Is the No-Code Movement the End of Programmers? Analyzing the Pros and Cons. Vc.ru. July 30, 2020. <https://vc.ru/services/146312-dvzhenie-no-code-konec-programmistov-razbiraem-plyusy-i-minusy>. This discussion fixes the problem: sooner or later, artificial intelligence can replace even those who create it because human intellectual capabilities have natural limits.

⁴ We can, of course, draw an analogy with the story of a stupid hare who does not know which way he will run, and therefore he manages to outwit a smart fox. In this story, the hare is man, and the fox is artificial intelligence (A. Auzan, "The Digital Economy: The Human Factor," Polit.ru, July 25 (2019). <https://polit.ru/article/2019/06/25/auzan/>). This analogy is an example of reasoning about intuition and creativity as an advantage of man over machine. However, such metaphors and reasoning are like postponing a solution to a problem or self-deception: it is possible that intuition is also based on algorithms of unconscious processes, and creativity is not as exceptional a feature of man as is believed [Elgammal et al., 2017].

⁵ Currently, the concept of *postwork* is being discussed, and positive future scenarios such as "tech-led abundance," "nonworkers' paradise," or "sustainable commons" are being considered [Hines, 2019]. The idea of an unconditional basic income is also discussed, which some call the desired scenario, while others call it an economically unrealizable armchair utopia [Kape-lyushnikov, 2020].

⁶ Experts draw attention to the complexity of artificial systems. This feature concerns both the complexity of development (one person cannot know how all modules function) and information processing mechanisms. For example, one of the author's interlocutors, a programmer, put it this way about the operation of the neural network: "We do not understand how the neural network works with information. Nor do we know what is going on inside. This is a black box. Yes, we set the initial criteria, but at the end we get an unexpected result."

man, postmodernity only points out the excessive complexity of the question of his existence and fixes his tiredness of trying to solve it—the problem is solved by ignoring or denying. This position is weak: what kind of historical conditioning of man and the collapse of metanarratives can we talk about if today the main metanarrative—existence in its ontological sense—becomes the stumbling block for science, technology, and philosophy?

Man acts as the bearer of existence in its ontological sense: at present, we cannot say that there are others. Most likely, there is an ontological gap between man and other objects. You cannot change man for them, because the exchange of being for nonbeing is a bad exchange from the point of view of both our basic intuitions and absolute value—existence itself. The value of man is no longer determined by his species, functional potential, cognitive characteristics, or economic efficiency; it is determined by man's status as a bearer of existence.

It is human nature to endow objects with value: we single out certain objects by giving them a special—and often exceptional—importance for us. The value of objects is relative and subjective because it depends on cultural, economic, or subjective contexts. However, “beauty is in the eye of the beholder,” and hence even our habitat, filled with objects of exceptional value for us, is only an application to existence, that is, to the possibility of the presence of value as such.

Bracketing off man and expanding the space of agency at the expense of other objects makes it possible to enjoy by getting rid of the need to solve an overly complex problem. Posthumanism offers us a tempting prospect—to finally get rid of man, who has ceased to be an object of interest for us, and to go beyond the boundaries of irksome humanness. The problem is that we have nowhere to go—we are the home from which all roads run.

POSTHUMANISM VS. TRANSHUMANISM

Man not only cannot compete with machine functionally; he becomes uninteresting to himself, ceasing to be a way to expand our knowledge about the world. It is possible to return interest in man by expanding the anthropological space at the expense of man himself. In this sense, transhumanism is opposed to posthumanism. Moreover, transhumanism turns out to be a “cure” for posthumanism. Despite the active development of technologies in all areas, the technologies of potential transformation of man are developing more slowly than those that replace him functionally. This trend is associated both with the obvious fear of artificial interference in human nature and with the relative simplicity of functional substitution. However, there are risks associated with a negative change in the value status of man. They can be leveled if man-replacement technologies and man-transformation technologies

are aligned in terms of dynamics. Fear of the artificial transformation of cognitive and biological capabilities can lead to an insurmountable value gap between man and other objects of the world, that is, to the dominance of posthumanism in the ideological space. In choosing between the obscurity of transhumanism and the “bad” version of posthumanism, we should perhaps choose obscurity.

If the problem is to align the technologies of substitution and change, some elements of its solution can be proposed. To preserve the value of man, it is not at all necessary to simplify technologies. On the contrary, they should be made more complex. When choosing between “simple” technologies and “complex” ones, one should choose the latter. Complex technologies are understood as those that do not just perform functions (for example, control) but also are subordinated to the priority of man as the main goal and are complicated by the need to correspond to the environment in which man is the main goal.⁷ In other words, the “digital concentration camp” is too simple [Merzlyakov, 2021].

Posthumanism works with man as if man is the end of the road, a dead end from which there is only one way out—back to objects. However, is this possible, if it is already clear that modern man is the beginning of a new stage of human development? Yet this stage may remain only a potentiality if man loses his value status. At present, people are catching up with technology. Perhaps some effort should be made to reverse this trend. Accordingly, man must have the freedom to change, which is the ethical element of “technological humanism.”

THE SOCIOCULTURAL POTENTIAL OF TRANSHUMANISM

Paradoxically, the value status of man is currently declining under the influence of two traditionally opposing ideological positions. On the one hand, his value priority is questioned in Western liberal societies due to the vector to expand the anthropological space at the expense of objects other than humans; this is a natural consequence of the development of posthumanist ideas. On the other hand, man, as an absolute value, experiences pressure from “Eastern” societies, in the value framework of which he traditionally occupied a subordinate position. In other words, even a society that was traditionally considered a “defender” of the individual no longer performs this function; man as the main value no longer has protection. Of course, in the long term, this situation is dangerous. However, here one can find a significant potential for sociocultural development: sandwiched between

⁷ Regarding control technologies, we can talk about replacing universal control with targeted control, abandoning control, public discussion, introducing spaces free from digital control, etc.

Table 1. Please tell, if it were to happen, whether you think it would be a good thing, a bad thing, or don't you mind? More emphasis on the development of technology

	Japan	Mexico	Russia	Turkey	United States	Germany
Good thing	68.4	56.9	73.9	54.6	54.2	74.8
Don't mind	26.9	29.3	13.7	31.6	38.8	11.1
Bad thing	4.4	12.6	8.7	12.7	6.2	10.8
Don't know	0	1.1	3.5	1	0.1	2.9
No answer	0.3	0.1	0.1	0.2	0.7	0.5

Source: World Values Survey.

the two competing ideological systems that erode the value status of man, Russia can become a force capable of taking on the role of man's "defender." Note that technological humanism as an option of sociocultural development may be a good fit with Russia.

Russians have a positive attitude towards the development of technology in general, and therefore they can rather be considered techno-optimists. The idea that Russians are conservative technophobes is not true, as both Russian [Vakhshain et al., 2016] and international studies point out (Table 1). It can be assumed that the techno-optimism of Russians will also contribute to the development of technologies associated with changing and supplementing the natural characteristics of man. Movement in this direction also corresponds to the Russian cultural and intellectual tradition, in particular, to the ideas of Russian cosmism [*Russian cosmism*, 1993, pp. 282–354]. In addition, Russia has the scientific and technological potential to improve the natural physiological and cognitive characteristics of man and demonstrates a positive trend in research in this area (for example, [Dezhina et al., 2020]).

Movement towards technological humanism can be a sociocultural advantage and fit into the logic of advanced development. The transfer of sociocultural values from another society can become an effective tool for modernization, but such a transfer is an element of catch-up development and is not always efficient. The problem is that transferred values may conflict with the existing informal institutions, which can change over a very long time. Therefore, it is important to find and use national cultural specifics to modernize society. In this case, it becomes possible to update those sociocultural mechanisms that are highly likely to be used positively in the future by other societies; such mechanisms have the potential to be not just an element of sociocultural development but part of a strategy for advanced development.

In terms of the logic of advanced development, it is more efficient to focus on cultural features that fit into the trends but are ahead of them [Merzlyakov, 2020]. In this case, it is more productive to emancipate groups of people that already include communities

emancipated in a potential donor society, that is, to search for the most promising options for "future" emancipation. From the standpoint of the emancipatory effect and the potential of involvement, the author views as a promising group people who either already have a technological/biological modification or who positively assess this phenomenon. Both those who already have some kind of modification and those who do not object to the very idea of a positive change in man can participate in the conditional "parade of the augmented." It does not matter what kind of artificial enhancement or some other addition a person has (an artificial hand, an artificial tooth, cognitive features, or brightly colored hair), the emancipatory and integrating effects act on all people. Positive consequences will be the demonstration of the techno-optimism of Russians, their orientation towards the future, a signal to Russian companies that have the potential to develop in this direction about the presence of a domestic market, "soft" reintegration of Russian society into Western culture in the format of cultural advance,⁸ the formation of a "future identity" that unites society with a strong ethical foundation, and emancipation of a large number of people.⁹ Thus, the potential of sociocultural development in this direction is determined not only by the "hard" ethical framework but also by the pragmatic expediency and sociocultural characteristics of Russian society.

CONCLUSIONS

Posthumanism can be called a useful concept from the point of view of science, ethics, and philosophy since it changes the research optics and makes it possible to look at existing problems in a different way. However, it carries long-term risks. From the standpoint of science, posthumanism ignores the problem

⁸ Advanced development implies "playing by one's own rules" and, consequently, less resistance from opponents of cultural pressure from outside.

⁹ People who are somehow uncomfortable with certain differences. Acceptance of artificial change is also a story about accepting differences in principle; hence, moving in this direction makes it possible to emancipate different groups of people.

of consciousness, which can be a species-specific feature of man. Until science has figured out the nature of consciousness and its function, there is no reason to endow other objects with consciousness. The unreasonable expansion of the presence of consciousness in the world leads to modern versions of panpsychism and the absolutization of animism, that is, to unscientific speculations. From the standpoint of ethics, posthumanism is capable of transforming into antihumanism. Posthumanism can be regarded as the value foundation of a new stage in the development of capitalism, which is accompanied by the gradual loss of the value status of man as an effective economic entity. An alternative to posthumanism could be movement towards technological humanism, which, presumably, corresponds to the sociocultural characteristics of Russian society.

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CONFLICT OF INTEREST

The author declares that he has no conflicts of interest.

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