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INTEGRATION OF SCIENCE AND GLOBALIZATION
PROCESSES

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Abstract

The purpose of this work is to show the possible influence of integration processes in science on the strategies and results of globalization. In this regard the following are considered: the main strategies of globalization; the role of science in globalization; the genesis of scientific knowledge; the current state of science disintegration; possible ways and methodology for science integrating. It has been shown that the main problem of modern science is the disunity of scientific branches, which is the result of the simultaneous use of scientific paradigms developed at various stages of the development of science. Attention is paid to the development of humanitarian knowledge that is lagging behind natural science. This lag is due to the fact that humanities still use the paradigm of classical science and its mechanistic ideas about man, while natural science is based on the paradigm and methodology of post-non-classical science. Since the education system broadcasts scientific knowledge, this situation of science disintegration by means of education only worsens over time. As a way out of this situation, the need to use the paradigm of modern post-non-classical science and its main methodology - integral vision - in all scientific branches is justified. To accelerate the processes of science integration, it is necessary to implement at all levels of the educational system a transdisciplinary concept of the educational disciplines interaction, according to which all disciplines should be built into a multilevel hierarchical system with a common paradigm and axiomatics.

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1. Introduction

Globalization processes are a powerful attractor, drawing into its orbit many other processes that stand at lower levels of the world procedural hierarchy. The reason for this is the fact that humanity is at the level of consciousness (subjective) is initially integrated with each other and with the world as a whole, as quantum physics and the doctrine of the noosphere Vernadsky tell us, and at the level of objective, body existence, a person, for the most part, identifying himself with body form, sees himself as an individual, some wholeness, having boundaries and separated from the surrounding world. Hence two strategies arise in his life: on the one hand - cooperation, on the other - confrontation, opposition, competition and enmity. Hence the two concepts of globalization, one of joining forces for the common good; the second is the conquest of world space to satisfy clan interests. Due to the fact that the process of mankind evolution in the future provides for its integral unity not only in the subjective aspect, but also in reality - in the world of objectively recorded forms and systems - the processes of such unity will inevitably develop in all spheres of human activity and in scientific among others. Since science as a source of objective knowledge is a significant system for the development of society and social relations, its internal integration in terms of the general integration process is seen as an extremely urgent task, without which the contribution of science to the process of globalization aimed at uniting humanity for the purpose of cooperation cannot be significant enough.

2. Problem Statement

What prevents science from achieving its inner unity? First of all, these are all the same human qualities that the now departed spiritual leader of India, Bhagavan Sri Satya Sai Baba, called six villains: lust, anger, attachment, hatred, greed, pride. (Bhagavan, 2012). It is these qualities that lead to the fact that, as Spengler said, many of the great ideas of alien cultures we let die, perceiving them as false, unnecessary or meaningless (Spengler, 2014). To this we can only add that this is happening now not only in relation to the ideas of "alien cultures," but also in relation to ideas belonging generally to someone else, for example, representatives of another scientific school. The very fact of the existence of commissions to combat pseudoscience suggests that nothing has changed in this aspect of scientific existence. Another, no less good reason is the irreparable insufficiency of scientific knowledge, since science functions in the space of objective, in the space of the world of reality (the world of things), the world of forms and phenomena of essence, but not itself. Actuality as a whole is inaccessible to it, since objectively existing tools cannot explore the subjective space, the space of individual and collective consciousness, in which there are no boundaries (Wilber, 2004). Scientific knowledge is always expressed in a text that has a finite alphabet, and by finite means it is impossible to directly express the infinite - the essence of things, their consciousness, their controlling system. Thus, the problem lies in the following: how, in the conditions of the existence of these reasons, to nevertheless move along the path of intra-system integration of the institute of science, without which it is impossible to effectively develop and positively influence the processes of globalization.

3. Research Questions

This problem can be presented in the form of a combination of its individual questions, the main ones of which, in our opinion, are the following.

- Genesis of the problem.
- Current state of scientific knowledge.
- Methodological approaches and specific solutions

4. Purpose of the Study

The purpose of the study is to show and substantiate the methodology of systemic integration of the Institute of Science.

5. Research Methods

Deductions, integral vision, orienting generalizations

6. Findings

A historical excursion at the time of the birth and beginning of the development of modern science using deduction methods and orienting generalizations (Wilber, 1997) allows you to see the following.

Modern civilization has passed, in the foreseeable time period, a number of fairly pronounced stages of its development, characterized by the actualization and activation of individual subsystems in the general system of man's perception of his internal world and the world of the external, i.e. the habitat in its entire integrity. At the moment, the following components of the general system of human perception are known and to varying degrees have been scientifically investigated. This is a kind of "eyes of cognition," as they are called in the key works of the author of the integral vision methodology Ken Wilber (Wilber, 1997; Wilber, 2000; Wilber, 2011): the eye of body - human sensory systems; the eye of mind and reason - fragmentation of the world and a vision of meaning in semantic systems; the eye of soul - perception of the energy state of space (sensual and supersensitive perception); the eye of spirit - controlled intuition, vision through space and time, that is, the ability to visually perceive objects of the world and events removed in space and in time.

Each person has his own unique system of perception, characterized by the degree of activity of his eyes of cognition. At the same time there are also general, historically shown stages of development of human mind, reason, consciousness (Wilber, 1997; Wilber, 2017), the consideration of which allows you to see the genesis of the problem under study.

Archaic stage of development: man is fused with nature and does not need means of assistance; eye of mind and reason in rudimentary state, other subsystems are activated; man unites in collective communities, which are quite enough for life that nature gives them; the process of cognition has an intuitive-sensual character.

Magical stage of development: the beginning of actualization of the mind and reason, in connection with which a desire arises and is realized to control elements of nature by their own psycho-

energy means; the magician relies on his previous experience of archaic, not losing contact with nature, with the habitat, but mastering the functions of a manager; horticulture and gardening arise in human communities; the knowledge of the world is carried out in a subjective way, by identifying the subject of cognition with the object of cognition (Aristotle's organon).

Mythical stage of development: a person realizes that there is someone above his capabilities; the idea of a personified God arises; increase of body eye and mind eye activity with decrease of soul eye and spirit eye activity; the emergence of science and scientific myths; the experience of archaic and magician by man is forgotten, due to the closure of the eye of soul and the eye of spirit as a result of the use of psychoactive substances (alcohol, smoking, etc.); a person gravitates to the use of means of assistance in his activities; the development of preclassical science and industrial production.

Rational stage of development: complete closure of the eye of soul and the eye of spirit with the dominance of the eye of mind and the eye of body; man becomes an atheist, because he has nothing to see God; the development of classical science based on Bacon's "New Organon," that is, an exclusively objective way of knowing using auxiliary tools; all scientific industries are integrated into one whole, because they are based on one basis, a paradigm whose role is played by the law of conservation of mass - the mass of matter in the universe is constant; a mechanistic idea of a person identified with his bodily form; psychology denies the existence of its subject of study - the soul; man sees science finite in space and time; development of technospheric thinking, consolidation of capital and means of production.

The pluralistic stage of development: the most developed part of humanity and the scientific community becomes clear that everything in the world has the right to exist, given to it by the Creator; the human being at this stage of development awakens the eye of the soul and discovers for himself a number of world universals (universal laws of the universe) proving the existence of the Creator, in particular the second beginning of thermodynamics, which suggests that unruly systems can strive only for chaos, and not for evolutionary development; science discovers a new substance (energy), clarifying the law of conservation in which both the mass of matter and energy are now included; the development of quantum physics takes science to the next stage of development - non-classical science; since the main contingent of the world of science is still at a rational level, classical science continues to exist, maintaining leading positions in the world of science and especially in its humanities; the simultaneous existence of two paradigms leads to a significant disintegration of the institute of science, the emergence of separate scientific branches with their private paradigms, a pluralistic view of the world on the principle of "each has its own truth and its own paradigm".

The cholic stage of development: the avant-garde of science and philosophy reveals that quantum effects are not local, but therefore the world is something holistic, and all its components are totally interconnected; all the same vanguard reveals such a substance of the universe as information (not as a collection of data, but as a creative force); the law of conservation takes the trinitarian form of "matter-energy-information" (Kuhn, 1962), perfectly consistent with the representation of the eternal philosophy of the trinitarian body-soul-spirit structure of man (Huxley, 1946); those who move science forward understand that science cannot distance itself from any source of knowledge (being, cultural, philosophical or contemplative) and unite with these sources on the principle of a union of mind and heart; post-non-classical science arises and its main methodology is "integral vision," developed and

proposed to the world by the outstanding philosopher and psychologist Ken Wilber (Wilber, 1997; Wilber, 2004; Wilber, 2011); the old in science does not want to give way to his positions either in the worldview or administratively; the avant-garde is accused of apostasy, betrayal of science and fascination with mysticism; Anti-pseudoscience commissions and committees are established; the internal disunity of the institute of science reaches its apotheosis.

Thus, in its genesis, science has approached its modern state, the main characteristic of which is disintegration. Why in the heyday of technology there is a state of disintegration in science, giving rise to an abundance of simulacrum and simulations in the humanities of science (Baudrillard, 1994; Gazzaniga, 2005) leading humanity to oblivion?

The stages of development of human consciousness and, accordingly, science are not tied to a specific calendar time. Studying Bhagavatgita, Einstein discovered there a description of nuclear weapons and the results of their use, which in this work, written more than a thousand years ago, is called the Brahmo weapon. That is, what we now call non-classical science was already lived by a person thousands of years ago, or perhaps more, which follows from those archaeological discoveries that are now not officially accepted to be published and discussed.

In other words, the stages of human and scientific development are not calendar events. They are present here and now at the same time. Here (on Earth) and now there are archaic communities and tribes ruled by leaders and sorcerers who are at the magical stage of the development of consciousness. Here and now there are simultaneously representatives of all other stages of the development of human consciousness and science. Moreover, representatives of different scientific paradigms work in the same scientific institution - from preclassical to post-non-classical and future, still only manifesting in the consciousness of researchers. Here and now there are politicians and economists who seek not to raise, but to reduce the level of mass education, out of fear that they will not be able to manage smart people. So paradigms of the early stages of the development of science are broadcast in schools and universities, while information and communication technologies and their corresponding weapons are significantly ahead of the development of mass human consciousness in their development, since their developers, fulfilling the orders of those in power, rely on the most recent achievements and paradigms of post-non-classical science.

What could be the methodological approaches and specific solutions to the problem under consideration? The answer to this question is simple enough: what disengages the institute of science should be eliminated. That is, the following is necessary.

A single common paradigm should be established for all branches of knowledge, corresponding to post-non-classical science, that is, a conservation law that takes into account the existence of a minimum of three substances (matter, energy and information) and the possibility of their mutual transformation. The paradigms of the classical and non-classical stages of science can be studied and investigated only in the context of considering the history of science and its delusions.

Since future scientists receive basic knowledge in the educational system, it first of all requires the widespread introduction at all levels of education of a transdisciplinary concept of the interaction of educational disciplines (Jantsch, 1972), according to which all disciplines studied should be built into a multi-level hierarchical system with a common paradigm and axiomatics set by the discipline of the

highest level of this structure. Only in this case, the reproduction of misconceptions, simulacrums and simulations broadcast by the education system to new generations can be stopped.

It is necessary to restore the quality of the system of general education and higher education, since the latter has long been turned into a system of vocational training aimed not at the comprehensive development of the individual, but at the training of "literate users" for the needs of the economy. It is necessary to eliminate the situation in which "we pretend to teach, they pretend to learn" (Collier, 2013). As a rule, real scientists (discoverers of the new one) do not leave the system of vocational training, only artisans come out, which satisfies many interested in preserving disintegration and science, and society.

All this cannot be realized based on the methodology of the early stages of the development of science. It is necessary to use the main methodology of post-non-classical science - the methodology of integral vision, which allows to create a holistic, integral picture of the world and, accordingly, the theory of everything (Wilber, 1997; Wilber, 2011). On its basis, it is only possible to integrate the institute of science, stopping, first of all, its division into the sciences of natural and unnatural (humanities), which is the main disintegrating factor that inhibits the development of the entire institute of science.

An integral vision implies a view of the object and subject of study by all four eyes of cognition, that is, to conduct research not only in an objective way, but also subjective. In other words: science should use not only Bacon's "new organon" (objective means of measurement and observation) as a universal means of cognition, but also Aristotle's "organon" - the use of the subject of cognition as a tool of cognition, by identifying the mind of the person who knows with the object of cognition.

The need for such an approach is perfectly illustrated by the four-sector model of integral vision proposed by Wilber (1997), according to which any individual in the universe (and a person in particular) exists in four spaces of being - objective, subjective, individual and collective. If a scientist looks at a person only as an object, he begins to mistakenly identify it with the biological body - with the form of existence. If a particular denomination looks at a person only as a "spark of God," this can lead to fanaticism, asceticism, and other misconceptions that interfere with integral human development. If a researcher looks only into the space of an individual, he has the idea of human isolation, from where most human problems go up to wars. If a researcher looks only into the space of a collective, he begins to imagine a person as a product of social, from where the misconception of psychology that individuals are not born, but become. Thus, the disintegration of the human sciences is carried out, as a result of which personality psychology proudly declares that in its understanding, personality is not what social psychologists talk about. The other side responds with the same pride. Both do not even think about looking at the problem integrally.

At the same time, in the sphere of subjective experience, there are excellent integral models of man, which make it possible to reconcile everyone and show them their shortcomings. For example, the seven-level model proposed by the layman brother of the Order of Rosicrucians Handel at the beginning of the last century (Heindel, 1911) very clearly and consistently shows the integral structure of a man in which there are seven bodies with a detailed description of the functionality of each of them. Yes, this is also a model, like all theoretical objects produced by science, but it has an integral character and, as a result, a huge explanatory potential that the models developed by science at the previous stages of its development do not have at all.

7. Conclusion

Modern science throughout the Earth's world is politicized, since its existence and successful functioning in any country are totally dependent on economics and politics.

The fragmentation of the interests of the economy and politics of leading countries, which arose as a result of the implementation of the principle of "divide and rule" known from antiquity, gives rise to the ideological and methodological disintegration of all social institutions and science, and religion, among other things.

As a result, globalization processes still continue to develop mainly on the basis of a strategy of counteraction, as evidenced by the competition in the development and use of means of conquering space, tactile, energy, information and hybrid wars.

Hope that the integration of humanity will arise on its own or by the will of external management is possible, but not necessary, as evidenced by the experience of previous dead civilizations and their high-tech remains. The desire and aiming to survive and not lag behind the process of general evolutionary development in space should come from humanity itself, since it is granted freedom of will by the Creator, and so far, no one is going to take it away from man.

There are two social institutions on earth that claim a leading role in society in terms of understanding the world: the first, confessional, because it considers itself closer to the Creator (subjective perception of the world by the eye of soul and the eye of spirit); the second is science, because she considers herself the holder of objective truth, knows more about the world order (objective perception of the world by the eye of body and the eye of mind and reason).

The time has come to follow the counsel of the Teachers of mankind to create a "union of mind and heart." This call to mankind was heard and broadcast by many, including Max Planck, who at the beginning of the twentieth century said that science and religion were moving from different directions, but to one goal - to the knowledge of the Creator. In this regard, the pervasive forced retention of the humanities in the paradigm of classical science is a crime against humanity, as it impedes this alliance.

One way to accelerate the processes of globalization aimed at cooperation, rather than self-destruction, is to popularize by all social institutions, especially education, religion and culture, the achievements of post-non-classical science, which includes not only objective truth, but also knowledge gained in culture, philosophy and religion.

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