

## The Anthropic Principle and Education

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Doi:10.5901/mjss.2015.v6n6s7p351

### Abstract

*In modern conditions of development of science, when the paradigm of scientific understanding of the world and man is changing, the education still follows the paradigm of knowledge before being. The identification of the knowledge and understanding makes education as the process of accumulation of information, regardless of the individual. Purpose of the article is an understanding what was said in terms of the anthropic principle proposed by theoretical analysis method, which should be the result of study of new educational technologies.*

**Keywords:** anthropic principle, Astrakhan region, educational paradigm

### 1. Introduction

The man as the supreme value is regarded as the central objective for the whole of the complex global challenges of our time in philosophy and natural science (Fromm, 1992; Maslow, 1997). A man being not just the body, but also an infinite universe is increasingly seen in a process of involution of man's fleeing from oneself. Nowadays, a new scientific picture of the world is being established, which brakes the traditional, age-old view. A new way of thinking, a new paradigm is being created. Amidst all the quests of today's world of particular importance is the concept of humanism. General history is seen as the process of humanization of man (hominization), for the wealth of the world is a man. The quality of the world is the qualities of a human being: the richer a person is, the richer is the world. With the first murder, history of calamities, disasters, wars, disasters, destruction of man and the world is increasing dramatically. For the past 50 years, psychology deals only with reintegration of demonic features in man, denying the presence of the soul (i.e. psyche), and its prior subject matter. Perhaps the challenge for the next fifty years will be, as suggested by Andre Malraux, to reintegrate gods in a man, or more precisely, in the words of Sri Aurobindo (2005), to reintegrate the Spirit in man and in matter and create a divine life on Earth.

### 2. The traditional educational system

The education system also proved to be a prisoner of a paradigm, which states the advantage of knowledge before the existence, at the time, as the level of knowledge should be determined by the level of being. Within the boundaries of the low level of knowledge, the improvement of the quality of life is absolutely impossible. However, the history of mankind has facts, when the imbalance of being and knowledge led to the death of entire civilizations. Therefore, man are living in a situation of imbalance. According to Satprem (2005), we lost the 'password'. this is the result of the history. We have replaced the true power with mechanisms and devices, and true wisdom with dogmas.

In this sense, the anthropic principle is an amazing principle, which can help the understanding of the true place of man in the universe, as a response to major evolutionary questions: remembering who are man, where we come from, and most importantly – why do we exist. Maybe consideration of the anthropic principle will help us to clarify the true nature of man and the universe, which are inseparable from each other, in fact, the universe is created by the mind and

the light (Divine), which are present in a person. But remembering this prevents man's duality – the material and the spiritual element, the last of which, unfortunately, is sleeping.

Let us make a few comments first. Firstly, the *relativity of knowledge*, or what people call knowledge, means knowing is being able to do. But our knowledge stem from books, not from direct experience, so the man's knowledge is defined by things read, heard, imposed, and the more it is filled with alien 'knowledge', the less with one's own. It is as a heavy weight on one's feet, do not give the opportunity to fly as Bach's Seagull. Relativity of knowledge is that the more we learn, the more new mysteries open. Secondly, the *'bookishness' of knowledge*. We all learn from someone, but true knowledge is in man, not in the book. This is what Berdyaev said: "...only the creator learns art, only the free learns freedom, only spirit learns spirituality". In the words of Sri Aurobindo (2005), "I'm becoming what I clarify in myself" (not read or learned from the stories of others, but clarified). Thirdly, there is a world, not only the physical (i.e. material), but also the immaterial, or, as physicists say, the *subtle world*. Without this understanding, there is no holistic (i.e. true) knowledge. The man has just stood at the threshold of this understanding. Shipunov says: "It is mathematically proven that beyond the physical world, there is even more complex wave world". We may recall the theory of physical vacuum elaborated by academician G.I. Shipov, and the theory of torsion fields. What is the relationship of life and spirit? Frankl notes, the subject, has always been, so to speak, outside with the so-called object; where the subject, there is the object, where is the being, there is the consciousness, and vice versa. Nothing is initial, nothing is secondarily, all is in all. By the way, Russian philosophy has made this conclusion prior to Frankl. Pavel Florensky read that the only way out of this swamp of relativity and conditionality is the recognition of the mind as involved in being and being involved in intelligence. In other words, there is an internal in external and vice versa (but it was known to Hermes Trismegistus: "what's inside, is in outside", "as above, so below..."). Fourthly, as noted by Tretouen (2001), "the knowledge, essentially, boils down to the vision of things; arguments and mind processes are of secondary importance... The purpose of these processes – the further expansion of perception. What is the relationship of life and spirit? The Spirit materializes (i.e. embodies), it is primary, it causes being, it is a true creator of man". Fifthly, we think that the anthropic principle should be considered in connection with consciousness. The fact that a person embodies real and imaginary. And, as noted by Uspenskiy (2002), it is impossible to study man as a whole, since man is divided into two parts. One of them, in some cases, may be almost real; in some other cases, it may be almost entirely imaginary. We are talking about such things as the *substance* and *personality*. There is a significant difference between them – the imaginary has no consciousness. Substance is innate, personality – acquired, substance represents own, and the person – not own, but its. Normally, the substance prevails over the individual, and not vice versa.

At the end of the XVII century, English scientist Francis Bacon proclaimed the principle of experimental verification of theoretical assumptions. All that is not amenable to experiment was rejected as unscientific, non-existent. And since the soul, the spirit, the mind were impossible to measure at the time, they dismissed as unscientific, non-existent. The God was also discarded. Therefore, physics, Laplace in particular, proclaimed that it no longer needs the hypothesis of God's existence. Other sciences followed physics. And, as Nalimov (1989) said, God has died in the world. He died not immediately, not everywhere, not for everyone, but died. God gave way to matter – the original substance, and the Law – the almighty organizer of the matter. It was not just recoding of the observed. *In the new recoding, the concept of meaning has disappeared*. Meanings appeared reduced to what is amenable to the study of positivist-oriented science. Naturally, this desire for reducing the complex to something simple has reached the man's consciousness. And then the study of man, at least in terms of philosophy, has lost all meaning, for it turned out that its main component – the Spirit, spirituality, is 'thrown out'.

### 3. Anthropic principle

It is recognized that, while remaining on a scientific basis, one cannot consider a normal state of consciousness in which we are able to think logically, as the only possible and the clearest. On the contrary, it was found that in other states of consciousness, yet little studied, it is possible to know and understand what in a normal state of consciousness one cannot understand. It means that 'regular' state of consciousness is only a special case outlook. The reality and value of mystical states of consciousness were and are recognized by all religions without exception. Today the fundamental science begins to absorb 'non-scientific' forms of knowledge. With the development of quantum mechanics, the world has acquired a property of dualism. Each elementary particle is a wave and corpuscle. The problem of dualism was faced for the first time, when scholars began to explore the light. It was found that the light has the properties of both particles and waves. There was a logical contradiction: to explain some phenomena it was necessary to consider the light as a wave, and to explain the others – as particle.

The resolution of these contradictions has led to the unique science – quantum mechanics. In 1900, Max Planck,

based on the experiments made, concluded that the light emitted is not continuous, but in discrete portions, or quanta. Quantum is the smallest particle of anything. Quantum of light became known as the photon, the quantum of electrical energy – the electron. Later it was proved that the light is not only emitted, but also extend discontinuously. Furthermore, all of the elementary particles are also waves and particles. The experiments revealed that the light behaves in one way or another *depending on the desires of the investigator*. And the scientists faced a question of *the mind, which no one has ever studied*. And it is clear that a person – a fractal of the universe.

The anthropic principle is one of the principles of modern cosmology, which establishes the dependence of human existence as a complex system and space creatures on the physical parameters of the universe (in particular from the fundamental physical constants – the Planck constant, the speed of light, the mass of the proton and electron, etc.). Physical calculations show that, if changed at least one of the existing fundamental constants (at constant other parameters, and maintaining all physical laws), the existence of certain natural objects – the nuclei of atoms, and so on would be impossible. For example, if the proton mass is reduced only by 30%, in our physical world would be missing any atoms other than hydrogen atoms, and life would become impossible. Understanding these relationships has led to the advancement in science and philosophy of the anthropic principle. Obviously, in terms of worldview the anthropic principle embodies the philosophical idea of the relationship of man and the universe, which was put forward in antiquity and developed by many philosophers and scientists (e.g. Protagoras, Anaxagoras, Bruno, Tsiolkovsky, Teilhard de Chardin, Crick, Dyson, Hoyle, Ukhtomskii, Andreev, Uspensky, and others).

The anthropic principle allows both religious and scientific interpretation. The first suggests that anthropic characteristics of the universe look like a confirmation of faith in the Creator who designed the world to suit our needs exactly (Hoyle). The scientific view is based on the thesis of the possibility in principle of natural existence of multiple worlds in which a variety of combinations of the physical parameters and laws are embodied. The value of the anthropic principle is increasing in our time, which is characterized by human activity in space and more serious turn of modern science to humanistic issues. So, the cosmological anthropic principle is the proposition, claiming a privileged place of man in the universe, which follows from the relationship between the existing universal constants, such as the speed of light, the gravitational constant, and others; we can say that the universe is the man's home. This principle has two versions – *weak and strong*.

At the end of the XX century, George Borrow and Frank Tipler (Nobel Prize winner) have formulated *strong anthropic principle*, the essence of which is as follows: *the consciousness is both the aim and the reason that the universe is as we see it*. That is, in fact, it is we, the people, our consciousness created and is creating our universe. The strong version suggests that the reality of the universe depends on the existence of man, that the biological selection of fundamental constants determines the specific structure of the universe and that the very origin of the universe to a great extent is determined by the existence of man. In its extreme form, the strong version of the anthropic cosmological principle, as formulated by physicist J. Wheeler, who comes from the concept of so-called complicit, man are not just watching the universe but give it existence. It is a model where the universe (i.e. object) and the man (i.e. subject) are indistinguishable: the universe is compared to the self-excited circuit, generating consciousness, and that consciousness actualizes, attaches importance to the universe itself.

In this regard, Wheeler suggested replacing the word 'observer' to the word 'party'. The idea of 'participation' has long been known in eastern wisdom: knowledge cannot be obtained just by observation, but only with the participation of all human being. The concept of 'participation' plays a fundamental role in the Eastern world view, and Eastern sages developed it to such a point where the subject and object are indistinguishable – that modern physics call the man a fractal of the universe. The anthropic principle of participation asserts that the universe is created by a set of observations of all observers – members in the past, present and future. No phenomenon is a phenomenon *until it becomes an observed phenomena*. And if I see, I will definitely participate in my experiences, and thus I am the co-creator. The idea that the universe does not only give life, but also (when life is already there) supports it in its inexhaustible and as the result is 'self-developing' according to its will, leads to the conclusion: *man is not only a measure of all things, but also their creator*. In terms of worldview the interpretation of Wheeler's anthropic principle is a modern representation of I. Kant *teleological world order*.

The weak anthropic principle put forth in the middle of the XX century several prominent scientists Idlis, Withrow, and Dicke: *the existence of the universe requires that at some point there appeared observers*. Note that the observer is a figure that 'expands' the observed with its consciousness. This principle suggests that any quantum object (and the whole world consists of quantum objects) is in a position of possible states, and *only the consciousness of the observer causes the object to move in a certain, specific state*. For example, consciousness, affecting the light, which is the energy with highest level of vibration, can make it organize into elementary particles and so they are combined into atoms and molecules (experiments of M. Planck). And if these molecules a programmed to stick together in an organ, it will be the

materialization, which is carried out, for example, by Sai Baba (see Shri, 2010).

It turns out, the actual reality does not lie in the physical world, but the world of consciousness. In other words, the universe is as it is given in observation, because there is a person and the person is not at the central position (as in pre-Copernican view of the world), it is in some sense inevitably preferred. As usual, the knowledge, having made the next round, brings us back to the same ideas but on a new qualitative level. Today enough evidence accumulated to bring man back to the center of the world observed. Privilege position of a man in the universe is as follows: a necessary condition for human existence are favorable conditions (for example, a certain temperature range, the chemical composition of Earth's atmosphere, etc.); human existence is due to the fact that Universe evolves and has local spatial heterogeneity.

The anthropic principle, in our view, could not emerge in today's humanity, as modern mankind is constantly looking for an answer to the question of the unity of man and the universe, man and God, it makes a man think about the world, about themselves, about their place in the world. The anthropic principle was formulated in natural science, but has a long ideological background, the beginning of which is lost in the origins of human culture. The idea of the unity of man and the universe developed in many philosophical and religious teachings. Today, scientists conclusively proven that under the influence of thoughts, emotions, the will of man, which are manifestation of consciousness, changes the DNA, structure, and chemical composition of fluids in the body, change the readings of instrument, programmes the animal behavior. In April 1999, Moscow hosted the International Conference on "The consciousness and physical reality. The science of the mind and the brain at the turn of 2000". President of the International Academy of Information, Communications, Control, Dr. Repev presented a report on "Biology – scientific paradigm change".

The report says that studies of man must be approached from a new angle. The research results proved that every object, every organism has a physical and energy-field structure. The energy-field structure contains the informational program of development of the organism. This program is on the principle of holography is contained in the chromosome apparatus at the field level. It can be disrupted by various factors – laws, customs, knowledge, thoughts. The distortions caused by the influence of thoughts, are fixed at the level of the chromosome apparatus, affect the human body and are inherited. That is what people think, what is their information environment in which they live, affect the state of body, the way of life. And this is the 'legacy', which individual transmits to descendants. Today, scientists say that a man mutating. He lives in a hostile environment created by own negative activities. In the expert opinion, the flawed, defective person is unable to keep clean his home, man create an aggressive environment. This aggressive habitat causes not only diseases, but also a mutation. Man mutates, his offspring becomes aggressive patient (physically or mentally) mutant copy.

Only the shift to the next level of consciousness can change the situation. The amount of scientific knowledge does not constitute an adequate image of the person, because it cannot satisfy the existential and moral needs of individuals. Faced with the knowledge gained, increased a person's will to clarify its nature, to find the meaning of own existence, which is increasingly seen in its coupling with the meaning of the universe. There is a range of issues related to the presentation of a person as a kind of universe, or monads, reflects the whole of our universe with all hierarchical levels, each of which has its own space-time scale – the range of issues that includes consideration of the anthropic principle in its weak and strong versions of the genesis and evolution of the universe, the nature of civilization and its varieties (i.e. Earth, extraterrestrial, cosmic), of man's place in the universe and galaxies and other aspects of its existence, is inseparable from the cosmos. The anthropic principle, is closely linked with the problem of the origin of man (the theory of evolution, the theory of creationism, external interference theory, the theory of spatial anomalies), which is associated with the understanding of man as God's creation. Making a general conclusion, we say that the anthropic principle implies that man does not occupy an average place in the universe, but this place is underlined with certain conditions prevailing in our galaxy.

#### 4. Concluding remarks on the need to change the educational paradigm

What this means for building the educational process? It is clear that the paradigm and the content of modern education should be reviewed. Be a man is to be directed to the meaning, and the meaning is not taught, it is being brought up. Contemporary education has no content or technologies aimed at the man as to help 'remember' who he really is. So the world and man is now in a dehumanizing condition (resulting in a global systemic crisis and, first of all – the crisis of culture). There comes a time of esoteric knowledge, equal rights and mix of intuitive and scientific knowledge. After all, education has a more literal sense – as the *education of one's self* (as a way of thought, speech, movement), which occurs in the interaction with the outside world. Education in this sense is a system, a process, a result, and most importantly – self-education. It was inscribed on the wall of the temple at Delphi: 'man, know thyself and you will know

peace'. That is what should be the main basis of the content of modern education.

What is the sense to accumulate bookish knowledge if we never lived outside delusions? As noted by J. Krishnamurti (2003), why do you want to learn from books, rather than to become disciples of life? The history of mankind is in you, in your vast experience accumulated by mankind for millennia. You yourself is this book. Existing paradigm should be replaced with the paradigm of the 'need- experience-action', as a way of controlled targeted actions to change the entire set of experiences, and as a result – stable individual needs. For pedagogy always and everywhere involves the formation of stable demand as the sole and universal source and stimulus of human activity, continuously updated as the experiences of the individual (intellectual, emotional, spiritual) that directly affect all the actions.

The book Avesta states, - there is one way – the way of truth, all the rest is not the way (the main book with canons of Zarathustra). Spiritual development is the opening of the inner source of wisdom and knowledge, expanding self-concept and self-spaces of human consciousness climbing to new heights. Man is the carrier of the spirit: knowledge, emotion, and belief. This interrelation is the spiritual education of a person on the basis of joint action and spiritual communication, reflection, and self-reflection. The school is designed to help the formation of humanistic, intelligent, kind, and creative man, capable of improvement and self-perfection, giving not fragmented, but holistic knowledge. Only the spiritual man can help resolve the crisis, which affected modern humanity. As long as education is not able to provide a *holistic view of life*, it remains meaningless. It is impossible to understand the life in abstract or in theory. Knowing life means to know one's self. It becomes the essence and meaning of education, because true education is self-realization, approaching one's self, to personal best, for self-fulfillment, self-realization, to find the divinity. Vedic tradition teaches us how to awaken the consciousness and to follow the path of Prav, i.e., to live according to conscience. Living by Prav means to grow spiritually, taking care of the immortal soul and 'oblige the eternal'.

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