The Subject is beyond Space and Time

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1. Emptiness is origin of the subject

In physics "the subject" is considered as one who is observing and experiencing a given physical phenomena and also observing a mind model which describes this phenomena. The subject has an inherent ability to be aware of material and psychological phenomena (scientific models created by the mind, thoughts, memories, emotions) and also to be aware of "spaces" in which these phenomena are taking place. Material phenomena exist in outer physical space, psychological phenomena happen in inner psychological space. The ability of "space observation" indicates that from ontological point of view observer is "beyond" physical and psychological space.

We have no experimental data that inner psychological space has origin in the neuronal activity of the brain; however its existence is certain in every human being and so we can acknowledge it as a scientific fact. The origin of inner psychological space (from now on "psychological space") could be even beyond quantum vacuum which is the physical origin of universal space in which stellar objects move. American theoretical physicist Max Tegmark proposes that material universe is an extension of mathematical universe. We enriched Tegmark idea with Buddhist model of "emptiness" which is origin of mathematical universe and material universe and has also ability to be aware of them. This visionary model of the universe has following structure:

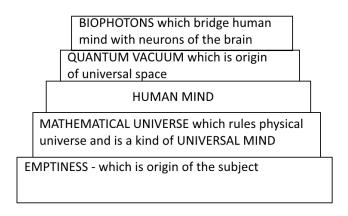


Figure 1: Structure of the universe

Emptiness is the fundamental reality of the universe in which exist other layers: mathematical universe (universal mind), quantum vacuum, electromagnetic radiation, elementary particles and atoms. Scientific mind has a partial access to the universal mind from which he receives mathematical laws which rule physical universe. Electromagnetic

radiation (bio-photons) is information medium between mind and human brain. In this model quantum vacuum is a medium of remote viewing, telepathy and quantum entanglement which are immediate phenomena.

Today physics is searching mainly on particles and electromagnetic radiation. Quantum vacuum, mathematical universe and emptiness as origin of the universe and of the subject are still unexplored. Quantum vacuum cannot be observed and measured directly as elementary particles. We can only measure effects of its variable energy density which generates mass and gravity. Physics without quantum vacuum is like a bird with only one wing. It can move only in circles. In 2000 became clear to me that a model of "empty space" in which exist particles and fields have no counterpart in physical universe. Curvature of space in General Relativity must be only a mathematical description of some more fundamental physical property of universal space. With my research fellow Davide Fiscaletti we publish several articles on the subject of quantum vacuum which is a missing pillar of physics.

2. Individual experiential research of NOW

Emptiness we can search only as a research subject of an individual experiential research. In this research we are not giving attention to the elements which exist in psychological space, we are deepening awareness of the space itself. Result of this individual research is discovery of the subject that he is even beyond psychological space and all its contents. Profound awareness of space leads to the self-awareness which is "beyond space". Self-realized human being is living this world of forms and he is not of this world, his roots are in formless emptiness.

Existence of the subject is beyond comprehension of common scientific analytical mind. Subject can be searched only experientially. Self-realized subject will fully understand the meaning of Albert Einstein words:

...there is something essential about the NOW which is just outside the realm of science. People like us, who believe in physics, know that the distinction between the past, present and future is only a stubbornly persistent illusion. The most beautiful thing we can experience is the mysterious. It is the source of all true art and science.

Albert Einstein

The subject which has deepening exploration "beyond space" will discover that linear time "past-present-future" represents only a psychological model trough which his mind experiences run of material changes (and life in generally) which happen in quantum vacuum where time is only a numerical order of changes. In quantum vacuum which is the fundamental arena of the universe is always NOW. Changes run in NOW, but human mind experiences them in the frame of linear time which is its creation. As physical reality exists in NOW, subject is experiencing life always in NOW (directly without interference of linear time). The Subject knows we are born, we live and we die in the same NOW and we are very rarely aware of it. Maslow has named these moments of NOW with term "peak experiences", Einstein with "mysterious".

In Greek philosophy they know Cronos and Kairos. Cronos is chronological time in a sense of duration and Kairos is present moment, NOW, which is eternity itself. With my research fellow Davide Fiscaletti we develop a model of time which has similarities with time by ancient Greeks. In our model fundamental time is a numerical order of events which run in a timeless quantum vacuum where is always NOW. When the observer (the subject) is measuring numerical order of a given event appears emergent time which is duration. There is no duration without measurement of the observer. Factually we are living in eternal NOW, the whole universe exist in this NOW.

With Fiscaletti we are developing a model of quantum vacuum as a fundamental arena of the universe where time as a mathematical parameter of material changes running in quantum vacuum. With this model we are bringing Einstein's NOW in physics. This model is the bridge between physics and experiential spirituality where only experience counts. Mind cannot fully grasp emptiness and the real nature of the subject, because from ontological point of view emptiness is primary and mind is secondary. The only way to experientially know emptiness is to dissolve ego and disappear into emptiness. The most known technique is a Buddhist meditation "vipassana", they are also others. Personally I like "vision quest" where you go in wildness in a deep forest, barefoot, with no food and flashlight and you stay there for a few days. In such a situation your mind will blow up and you will be forced to step into emptiness in order to survive and not enter in a deep fear or panic.

3. Self-realized subject is the basis for planetary civilization

Self-realized subject which is fully aware of emptiness is the basis for a planetary civilization where religious, national and racial identifications are secondary. Primary is the subject which has origin in the same identical emptiness, which is the ontological basis of entire universe.

We will never reach to the peace on this planet with "intercultural cooperation" because "culture" belongs to the mind and to the past and real life is only NOW. History has shown two minds "burden" with different education and different religious background cannot live together in peace and harmony. We cannot build peace on the things in which we are different, we can build peace on the things we have in common. The subject is common in every human being. Proposal of this paper is that individual research on "the subject" in worldwide education could become an element of real integration between different cultures.

On other side self-aware subject distinguishes clearly between models of the world made by the scientific mind and the world itself. For self-aware subject is clear, that model of "space-time" and many other models in contemporary physics have no counterpart in physical world. Self-aware subject is using bijective function of set theory for development of bijective epistemology where each element in the model of the world correspond exactly one model in the real world. Bijective epistemology is excluding from physics "empty models" which are product of human phantasy and have no existence in mathematical universe. Bijective epistemology could also be extended in human sciences and so development of Theory of Everything – TOE which will represent an adequate picture of real

world where human mind represents a tiny element and emptiness represents the ground element of entire universe.

4. From geo-centrism and anthropocentrism to bio-cosmology

In order to enter in harmony with nature and universe human society needs right understanding about real human position in this universe. We have to replace geo-centrism and anthropocentrism with bio-cosmology where evolution of humans on planet represents a part of an universal process.

In physics homogeneity of the universal space is generally accepted. This means that universal space has the same physical properties on the large scale. Physical homogeneity of space means that physical properties which define circumstances for development of life are the same in entire universe. Physical homogeneity includes also biological homogeneity which means that evolution of life on the planet earth is part of an universal process happening in entire universe.

Basic organic elements for development of life have been discovered in entire universal space. This means that entire universal space is in the phase of "chemical evolution" which has been developed further in biological evolution on the planets similar to the earth. NASA discovers planets similar to our planet earth. We are not the only civilization in the universe; development of life is a consistent part of cosmic dynamics.

With my research fellow Davide Fiscaletti we propose a dynamical model of the universe, where matter is transforming in black holes in energy of quantum vacuum. In interstellar space energy of quantum vacuum is transforming in cosmic rays and these further in elementary particles. This circulation of "energy of quantum vacuum — matter — energy of quantum vacuum" is permanent. Evolution of life runs in entire universe. Increasing of the entropy we observe in the universe is only a partial process of energy circulation which is permanent. Universe a whole has no entropy.

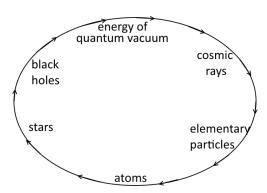


Figure 2: Permanent circulation of energy in the universe

In ancient Egypt and India this eternal circulation of energy in the universe is represented by auroboros, the snake which is eating its own tail.



Figure 3: Auroboros

In our cosmological model universe is a non-created system in a permanent dynamic equilibrium. In such universe evolution of life as negenentropy (negative entropy) process is a consistent part of cosmic dynamics and develops in entire universe.

Today human mind is squeezed in narrow ideas which are causing suffocation of entire human population. On universities we are still teaching students "old stuff" which belongs to the past millennium. Academic society still believes that rational human mind has some "hidden" potential to "save" our civilization. In this paper is shown mind is only a tiny surface of a deeper reality which is "the subject". The self-aware subject is the only "medicine" which can cure today human society, burden with violence and social injustice. "Salvation", "the second return of Christ" will come in life only with conscious effort of politicians and govern elite to wake up entire earth population from the mind to the subject.

Sources:

- 1. Max Tegmark, Our Mathematical Universe, Knopf 2014
- 2. Amrit Sorli, *The Physics of NOW*, subtitle: *Experiential Consciousness Research*, Amazon 2013 (also published in Italian language with title: *La fisica dell'attimo presente*, Macro Edizioni 2014)
- 3. Amrit Sorli, Davide Fiscaletti, The *Infinite History of NOW*, subtitle: *A Timeless Background for Cotemporary Physics*, NOVA 2014
- 4. ESO, 2015, http://www.eso.org/public/news/eso1513/
- 5. NASA, 2015 https://www.nasa.gov/ames/kepler/nasas-kepler-discovers-first-earth-size-planet-in-the-habitable-zone-of-another-star/
- 6. www.fopi.info Foundations of Physics Institute FOPI with links to all published articles of Sorli and Fiscaletti