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Cuvinte cheie: mistere, întrebări, Univers, știința, fizica, tradiții spirituale.

Raportarea la univers-de la știință la revelațiile mistice

Rezumat

În decursul mileniilor întrebările legate de Univers au fost o constantă în gândirea umană. Omul a căutat să înțeleagă marile mistere legate de propria ființă dar și de lumea în care trăiește, elaborând concepte, teorii și modele care să-l ajute în încercarea sa de a descrie într-un mod cât mai inteligibil Marele Mister al Universului.

Din vremea lui Democrit deja omul a știut că tot ceea ce îl înconjoară este alcătuit din atomi, ba mai mult, chiar și sufletul este constituit din același tip de particule. De atunci, pe parcursul a mai mult de două mii de ani, gândirea umană a străbătut un drum extrem de dificil, cel al cunoașterii, informațiile dobândite fiind uluitoare, contribuind la aceasta atât știința cât și filosofia ori trăirile mistice. La finalul acestui interval ajungem să credem, pe bună dreptate, că noile teorii ale fizicii intră în consonanță cu tradițiile spirituale, cu experiențele mistice orientale și occidentale. Tot acest efort uriaș al inteligenței și spiritualității omului are, în ultimă instanță, un singur țel: anume acela ar re-întâlnirii ființei umane cu Armonia Universală.

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Key words: mysteries, questions, Universe, science, physics, spiritual traditions.

Relating to the Universe – from Science to Mystical Revelations

Summary

Along the millennia the questions about the Universe have been constantly present in human thinking. Man tried to understand the great mysteries connected to his own being as well as that of the world he lives in, elaborating concepts, theories and models to help him in the attempt to describe in an as intelligible as possible way the Great Mystery of the Universe.

From the time of Democritus man had already known that everything around is made of atoms, moreover, that even the soul is made of similar type of particles. Since then, along the more than two thousand years, human thinking has gone through a long and extremely difficult process, that of knowledge, the information achieved being amazing, to this contributing science, philosophy as well as mystical experiences. At the end of this interval we have reached the stage to believe with justification that the new theories of physics are in consonance with the spiritual traditions, the oriental and occidental mystical experiences. All this huge effort of man's intelligence and spirituality has ultimately a single aim: namely, the human being's re-encounter with Universal Harmony.

Relating to the Universe – from Science to Mystical Revelations

Starting from the last decades of the 19th century, science has taken an innovatory trajectory as concerns the understanding and interpretation of the world. Especially the new theories in physics have shown their effects concerning man's capacity to perceive and disclose the most profound aspects of material and spiritual life. Albert Einstein's structuring the basis of quantum physics represented a real change in the paradigm of modern sciences. Starting hence, later on, the developments resulting in the elaboration of two new theories followed: quantum electrodynamics and quantum chromodynamics. These two theoretical approaches have allowed the elaboration of the most important construction of physics: the standard model whose aim was the unification of the fundamental forces of nature. The basic idea of the whole theory was that all the four forces in nature are in essence only forms of manifestation of a single force. Thus, from this point of development of this theory it has been easy to go forward, we would say almost naturally, relating quantum physics to mystical experiences. In order to understand this statement that may seem hazardous, we will sketch succintlty some of the basic ideas of quantum theory:

a) first of all let's underline that quantum physics sustains (and demonstrates) that any material system has a basic characteristic: the wave-particle duality. More exactly, the electrons, which in the Newtonian theory appeared as particles, can behave as waves under certain conditions, conforming to the laws of electromagnetics and not to those of classical mechanics.

b) the totality of actions that are manifest in physics can be measured, and the smallest "fragments" that cannot be divided are the "quantums". The transition of an atom from one state to another will be with the releasing of a quantity of quantum luminous energy. Whenever there are interactions between the particles, then these appear as connected through certain invisible links manifest in the entire environment. On a large scale these invisible connections are so numerous that their analysis is to be made probabilistically.

c) a strange property is quantum "non-localization". It is about the interaction between particles at an enormous distance, phenomenon appearing as if these particles were interconnected, but the connection between them is unknown. It is as if to say that there is a "whole" that controls each particle in the universe through mechanisms which cannot be desciphered. It could be stated simply (as there is also the demonstration of this fact[2] accepted by scientists) that objective observation cannot be made because the observer,

[2] In 1927, Werner Heisenberg formulated the principle of incertitude demonstrating that there is an inferior limit of the production of standard deviations in the position and impulse of a system.

through his action of observing, changes the quantum status of the observed system. Within the framework of the new concepts of quantum physics the intensity of the energetic field does not matter anymore, what matters is only its form, namely its structure. In this way any infinitesimal quantum field can affect a particle modifying its status. Thus intensity does not matter, what matters is the presence or absence of that quantum field. It is not necessary for the force to be active, it can exist as a potential, this potential being of utmost importance in quantum physics.

Another important contribution to the fundamentation of the new relationships in physics has been made by Albert Einstein who, with his well known formula $E= mc^2$, has shown that mass is nothing else but energy in a state of rest. The theory of relativity demonstrates that the mass of a particle has no relationship with substance (as it happens in classical physics), mass being nothing else but a form of energy. While energy is a dynamic gauge in correspondence with the processes of transformation, accordingly, a particle cannot be imagined as a static object, but as a dynamic entity, thus as a process that implies energy. The formation of particles from pure energy represents the essential consequence of relativist physics. The demonstrations of quantum theory have supplanted the classical concepts of solid body and the strict deterministic law showing that at subatomic level the solid material bodies of classical Newtonian physics are actually probability waves and these refer to the probability of interactions.

David Bohm, an important physicist of the 20th century, was very much preoccupied with the realization of a connection between spirituality and quantum physics. He has imposed the concept of "implicit order", as fundamentfundament of his quantum theory. According to this theory the entire universe is in a certain way "warped", it contains each part of it and each part is ultimately a condensation of the entire universe. The universal order can be revealed step by step, but the the way of understanding this order is only at its beginning. Bohm is among the first scientists who have launched the hypothesis (actually demonstrated) that there are multiple universes, beyond the physical or energetic level. Bohm classifies the dimensions of the universe according to their „subtlety". The multidimensional reality is described in analogy with the holographic photography: the holographic universe is made up of an infinity of dimensions which coexist and are structures similar to the whole: the universe, having the same characteristics.

In the theory of the spatio-temporal continuum the physical universe is only a strictly particular manifestation in time of the universe with an infinity of dimensions[3]. In this way the fourth dimension represents the dimension of the objects and of the material space perceived as an extension in time. Binary logic that is familiar to man cannot be applied anymore. The awareness of other dimensions of reality is a phenomenon that can be explained and does not belong to the domain of the esoteric. The experiences of expanded consciousness have as their effect a transformation of the level of awareness – so it is not reality that changes but the individual's subjective perception.

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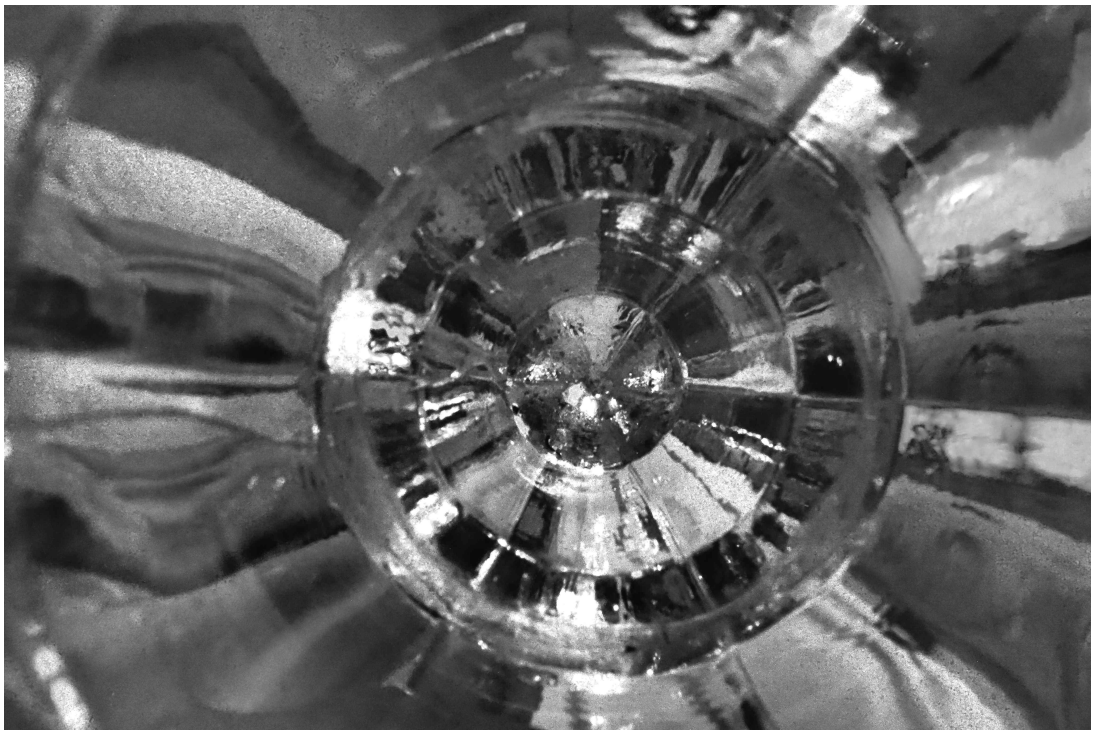
[3] See Maughlin, Samuel – *Dimensionality and States of Consciousness,* in Handbook of States of Consciousness, Van Noustrand Reinhold Company, New York, 1986.



Abstract; foto: Felician Săteanu

A basic assertion in quantum physics is that reality is made up of an infinite number of simultaneous universes. The connections between the dimensions are achieved with the help of those ”singularities” of time-space, the so called ”black holes” in whose proximity the laws of physics are strongly modified. Actually these black holes represent the points of passage from one universe to another. By such a space-time anomaly consciousness can make the passage from a tridimensional plane towards a quadridimensional one, this passage could continue to a five dimensional plane etc. In the proximity of these points of connection (or inflection) between the planes of the universe space and time undergo some observable changes. If two gauges of equal length are taken and one is set in the proximity of the ”black hole” then this will become significantly longer. The way time passes differently in a black hole in comparison with its exterior, t leads to the production of phenomena which may appear as strange. A referential system placed in a black hole will record the processes around it as taking place with much higher speeds. Such experiments have been made in the 20th century exactly in order to verify Einstein’s theory of generalized relativity.

According to the theoretical model proposed by Einstein there is no need to travel with the speed of light because the so-called mini-black holes can be ”accessed” by metamorphoses in the field of consciousness, points in which space vibrates with the speed of light. And this possibility depends on the capacity to consciously use the fundamental force that is at the basis of the universe.

According to R. Penrose, the fundamental structures of space-time are the ”light cones”. They represent in essence the motion of light starting from a point but on an axis

that contains also time, from past towards future. As the propagation of light appears both in tridimensional space and in temporal dimension, the geometrical form that approximates this extension of light is a cone. Inside generalized relativity these light cones are present everywhere,in such a way that any particle has its own ”light cone” pointing from past to future. A strange phenomenon appears when inside an intense gravitational field space-time curves and the future of a particle becomes its past, closed cyclical universes being thus generated. We are in the situation of being confronted with a non-linearity of time. In this situation the major modifications in the subjective perception of time can be produced through changes in the structure of the observer’s consciousness. Thus time must not necessarily flow with the same ”velocity” or in the same direction, being dependent on the observer’s consciousness.

In nowadays science that is based on quantum type approaches, consciousness cannot be understood anymore as a „field” but as a „quantum complexity”. Similarly the brain is also a quantum system, thoughts or the reflexes of consciousness are in the same way cerebral quantum events. From the perspective of this scientific approach the very process of awareness can be viewed as a „quantum jump” from the separate cerebral functioning of cerebral subsystems towards a unitary and synergetic structuring of these systems. As a consequence of the passage to another cerebral level (following a „quantum jump” the brain slides towards a higher (thus more complex) level of understanding, and consciousness to a wider sphere of comprehension.

Quantum theory has found application also in other fields of science such as psychology. The Romanian scientist I. Mânzat has brought an important contribution in this field by developing a project of a quantum psychology.[4] Nevertheless in this paper we will not insist upon this subject that no doubt deserves to be tackled. Returning to our analysis we underline, the way we have already shown, that nowadays science (structured on the basis of quantum theory) has succeed to demonstrate that an infinite number of universes exist simultaneously, the connection among them being achieved through certain ”singularities” (”black holes”) whose essence is actually light (more precisely luminous energy). Consciousness, as basic element of the universe is part of these planes, as an essential characteristic of each dimension. A wide scale application of the principles of quantum physics can show the similarity between multidimensional universe and multidimensional consciousness, starting from universes with primary structure (with a simple consciousness attached to them) and up to complex integratory universes which contain an infinite set of primary universes,with a corresponding expanded consciousness.

Another analysis that can be made, starting also from the complex theory of quantum physics is the one that refers to the flow of time. Experimentally demonstrated by scientists, the relativity of time has generated in human thinking a connection between the material and the spiritual universe. From Einstein on space travel can be achieved, the only impediment being the insufficient development of technologies and equipment that would allow the movement of a vehicle with a speed close to that of light or the possibility to

[4] See Ion Mânzat, *Psihologia Sinergetică*, Editura Pro Humanitas, București, 1999

achieve a major amplification of the vibration frequency of the electromagnetic field (easier to achieve nowadays).

The connection between the material and the spiritual universe could be better understood paying attention to mathematical demonstrations and in the same time to mystical revelations. Thus scientists state that ultimately everything is light, more or less chained by the gravitational energy and thus slowed down to very low frequencies, from pure light to dense matter. Mystics state that everything is solely Godly Light, more or less arrested by matter. Physicists show (with the help of mathematics) that time travel is possible as the unification of past-present-future, while mystics experience profoundly this reality. A very interesting theory (even if controversial) has been elaborated by the French physicist Robert Dutheil[5], with his explanation of the super luminous universe. Dutheil's theory comes with an entire model that tries to explain the phenomenon of death and the passage to another world or to another dimension. The extension of the theory of relativity to luminous particles (tachyons) guided the scientist to a tripartite vision of the universe. The sub-luminous universe, where time flows governed by separability and causality; the luminous universe or the light wall, a border that delimitates the two universes; and the third one, the supra-luminous universe, in which time does not flow anymore, governed by instantaneity, eternity, non-separability and non-causality. In Dutheil's theory the super-luminous universe would be the originary zone in which each individual consciousness emerges in the moment of birth in order to evolve in an experience of reincarnation in a body subject to the sub-luminous gravitational field. It could return there fugitively, in the case of an accident such as close to death experience or any other kind of "mystical" experience but total reintegration could be achieved only with the complete death of the physical body. Then, according to this model postulated by Dutheil we can better understand the idea of "oneness in the light" that ultimately represents a return to the primordial universe (the super-luminous universe). In other words the model describes the possibility to pass from one dimension into another, from one universe into another.

Ultimately both physicists and mystics are preoccupied with the same thing: the attempt to understand the universe and the universal consciousness. Mystics describe those astral worlds in which even thought moves too slowly. Physicists demonstrate the possibility of existence in simultaneity of more planes of existence in the same space but with different frequencies. We could say that in essence the world scientists describe is identical with that perceived by great mystics.

As a basic principle of the Universe consciousness respects in totality its laws: the multidimensionality of universe presupposes the multidimensionality of consciousness. Consciousness is only one but it can be found in humans both in the form of self-consciousness and in the form of Cosmic Consciousness, with permanent access to past, present and a more or less close future.

Instead of a conclusion we could once again underline that both science and mystical experiences bring their contribution the noble effort of the human being's re-encounter with

[5] Robert Dutheil, Brigitte Dutheil, *L'homme superlumineux,* Ed. Sand, Paris, 1990

Universal Harmony.

Abstract; foto: Felician Săteanu

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