

Recent advances in science may justify “Santhara”

“Santhara”, an old custom from Jain tradition. It is a practice in which a person stops all life support inputs like food, water and medicines and other activities. He then waits for a peaceful death along with a wish for a good yoni in the next birth. It is based on the principle of Jainism that a person has a body made of material particles known as karma and a soul. When a person dies, it is only his body which dies, his soul goes to some other birth depending on his past actions or his karmas. Thus Jainism believes in life after death and also a life before his birth. The oath is taken only after consent of the family members and relatives. As per Jains there are 84 lakhs yonies in the world and his human life is just one incident in the history of movement of his soul, which may pass through many of these yonies. Hence they put tremendous emphasis on one's soul, which is permanent and less emphasis on one's body which is a temporary phenomenon.

The recent high court of Rajasthan has taken a decision and declared “Santhara” as a suicide or self-killing and declared this as a crime. However, since the whole phenomenon involves concept of soul and rebirth and life after life, hence it is quite appropriate to see the latest point of view from scientific perspective. Actually let us first clarify that what scientists are calling as consciousness is quite different from the entity referred to as soul in Indian philosophy. In science the two terms are used interchangeably. It is assumed to be a non-physical entity. However, in this era of modern science, concept of consciousness/soul is now discussed more seriously. There are scientists like B D Josephson, E P Wigner, George Gamow, Kurtz Gödel, Prigogine, David Bohm, Roger Penrose, Deepak Chopra and ECG Sudarshan to name a few, who believe in the concept of consciousness and soul and feel that such a concept can be relevant even in science.

The interest among scientist to understand consciousness and soul can be inferred from an international conference on consciousness which was organized by the Centre for Studies on Consciousness of the University of Arizona at Tucson from April 21-26, 2014. Around 1000 scientists from 60 countries participated in this conference. Experts were there from various fields like computer science, neuroscience, neurophysiology, anaesthesiology, cognitive sciences, cybernetics, schools of medicines, bioengineering, artificial intelligence, physics, quantum biology, quantum computers, relativity theory, naturopathy, philosophy, psychology, religion, arts and many others. In all there were 500+ papers presented in this conference.

First the concept of consciousness comes into the picture in science due to many reasons. As per latest research in this field, all human beings have multiple options for taking any decision in any field and there are always choices available through what is known as a free will. There is another property of the brain that is memory which is holographic in nature, and is therefore not localized. Non-locality also plays an important role, in binding of say sense of ‘colour’, “shape” and “motion” of a moving object whose corresponding “senses” in the visual cortex are located in different regions and are also processed in different times. Hence possibility of using quantum physics for understanding consciousness was explored right from the discovery that electrons behave both like wave as well particle and there is an inbuilt uncertainty in our decision making. Also since a wavefunction in quantum mechanics, is always non-local and so can explain the non-local memory of the brain. Lastly

quantum systems also have a property of entanglement, as per which two parts of a quantum system are strongly interrelated like spins of a two electron system, and so relevant in this context.

Prof. Penrose and Hameroff have also explored quantum mechanics and general theory of relativity in this context. They have found that neurons have a large number of microtubules, which further consist of millions of smaller structures called tubulins, which behave like quantum mechanical systems, known as qubits. Millions of these tubulins from thousands of neurons can collectively oscillate through neurotransmitters and gap junctions and can generate group of several different quantum states, known as a quantum superposition state. This is however unstable and reduces to one of the state in certain time. This process is called Orchestrated Objective Reduction (Orch OR). This transition from quantum to classical reality is termed as consciousness. In addition, the sub-consciousness mind which is responsible for 90 percent of brain functions may act as a quantum computer.

Now let us see how soul comes into the domain of science. As we know Einstein combined space with time and arrived at a concept of space-time geometry which becomes a curved space-time geometry in general theory of relativity (in presence of matter). However quantum physics and general theory of relativity are very different concepts and difficult to reconcile. It is only very recently that a new concept has been developed to combine these two, which results into what is known as quantum gravity. There is a speculation that as one goes very deep towards the reality, one has the so called smallest units of space-time at Planck's level that is at 10^{-35} cm in space and 10^{-43} seconds in time (both combined). They are called Planck's polygons, which can have spin foams. The interesting point is that these spin foams can carry information. This space size is much smaller compared to the sizes of electrons, protons and neutrons.

Getting inspired from these findings, famous Indian academician Deepak Chopra has written a famous article with Prof. Stuart Hameroff whose title is "The "Quantum Soul": A Scientific Hypothesis". As per these concepts any person can have space-time geometry in principle and it can store information. Not only this, the information stored in the space-time geometry of a person can be linked with the information contained in tubulins in the brain. This interaction of two information systems could lead to a big revolution and may explain spiritual phenomena like life after life and out of body travel and many others. When a person takes a birth, its fate is determined by the information stored in his space-time geometry which in turn could be determined by his past actions or karmas. Whatever he does in this birth is stored in the form of information stored both in the brain as well as in his space-time geometry. When a person dies, the body cells made from electrons, protons and neutrons disappear and hence the information stored in the brain also disappears. But the information stored in the space-time geometry remains intact. It determines his future births.

In view of all these developments dealing with concept of rebirth and life after life, it is suggested to the honourable judges to reexamine the concept of "Santhara" as it involves good logic and emotions of lakhs of Jain people.

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