Human Soul and Science

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The nature and makeup of human soul has long been the source of questioning and curiosity. Scientific quest is equally fascinating. What is the nature of soul or consciousness? Are we the human beings merely bodies and brains or is there something we call the soul or the conscious or spirit? Such and many more questions haunt scientific curiosity.

Free Human Will—a Proof of existence of Soul:

According to general scientific opinion, it is all matter and energy what exists in the universe and we the human body and our brain is part of that energy and matter. The matter can change forms and that is what happens when the physical body dies. This is understandable since the matter and energy interact according to the laws of physics and our body must follow those laws-- if that is what we only are!

By following the above theorem it is at once evident that the human beings do not have any free will. Being matter and energy alone they are functioning only according to the laws of physics and mathematics. In real life experiences however we all observe that along with existing natural laws the free human will too is operational.

Many verses in the Holy Quran tell us that human beings do have free will by which they can discriminate, decide, choose and follow their life. For example: "There shall be no compulsion in matters of faith (2:257) which implies that we do have a choice by our free will. *Also*, "Allah burdens not any soul beyond its capacity, it shall have the reward it earns, and it shall get the punishment it incurs" (2:287). And again, "The soul and its perfect proportioning, Allah revealed to it the right and the wrong of everything" (90:8-9) Free will leads to accountability and the Holy Quran speaks of accountability repeatedly. "And that man will have nothing but what he strives for" (53:40).

Free Will & Modus Tollens:

Whereas spiritual revelations foretell things out of divine knowledge, the scientists take the much longer and tedious route of experimentation, reasoning, evidence and mathematical proof. Kevin Favero, an Electrical Engineer from the University of Illinois in his book "The Science of the Soul" describes that if it can be proven that human being do have 'free will' then it is automatically proven that there is something beyond matter and energy. In mathematical terms the above notion can be described as follows:

Let's say that P is = to 'Only Matter and Energy is There' and Q is = to No Free Will' then the above argument can be summarized as follows:

- 1. If P is there then Q is there
- 2. Q is Not there
- 3. P does not Exist

Proving 'Free Will' in human beings nullifies Q and subsequently P is automatically denied which implies that 'there is no matter and no energy'. This conclusion obviously is not true. The alternative conclusion therefore is that there are things beyond energy and matter.

The mathematical expression of this scenario is given by Modus Tollens. Modus Tollens is a valid form of argument in propositional calculus in which P and Q are propositions. If P implies Q, and Q is false, then P is false. It is also known as an indirect proof or a proof by contra positive. It is written as follows:

$$\frac{p \Rightarrow q, \neg q}{\therefore \neg p}$$

He argues that the views of creation given in Biology such as theistic evolution (the classical religious teachings about God are compatible with the modern scientific understanding for biological evolution), special creation, and intelligent design do not negate the presence of free human will. The Quantum Physics may try to explain free will on the basis of quantum fluctuations and the bundling of the wave function of the electron however it could never be the source of free will. In Mathematics, human thinking is not analogous to that of a digital computer. Computer does not have "noncomputational" aspects of our thought processes.

The Role of Free Will:

Hadhrat Khalifatul Masih IV ^{ra} in his book "An Elementary Study of Islam" compliments the existence of free human will and describes its role as follows:

"In relation to religion, there are some spheres of destiny which are predetermined and unchangeable. They are referred to in the Holy Quran as the Sunnah of God. One such *Sunnah* is the destiny that God's messengers will always be victorious, whether they are accepted or not. There are certain areas in which man is free to exercise his will, where he can choose between good or bad, right or wrong, and for which he will be held responsible. On the other hand, there are areas in which man has little choice of his own, and appears to be a pawn in the hand of the mover. The general plan of things in nature, which covers and controls the destinies of nations and peoples are such areas."

The conclusion therefore is that the human beings DO have free will which primarily operates in their personal sphere and therefore their 'physical person' is more than matter and energy.

Beyond Physical Body:

Through their vision and reasoning, there are scientists who believe there is more out there in the universe besides matter and energy, such as a soul. The vastness is inconceivable to human wit and vision.

Dr Paul Davis, a theoretical physicist and a cosmologist in his book "God and the New Physics" writes that the discoveries of 20th-century physics -- relativity and the quantum theory -- are now pointing the way to a new appreciation of man and his place in the universe. This could help us understand a unified description of all creation. Demanding a radical reformulation of the most fundamental aspects of reality and a way of thinking that is in closer accord with mysticism than materialism, the new physics, says Davies, offers a surer path to God than religion. Davis also says, "the mind (or soul) is not located inside the brain or any other part of the body; or indeed anywhere in space at all. Mind is not a physical substance, but a tenuous, elusive, ethereal sort of substance, the stuff that thoughts and dreams are made of, free and independent of ordinary ponderous matter."

According to Encyclopedia Britannica, the above concept of soul appears to be necessary because soul is neither visible nor can be physically detected. If soul is not space, then it exists in time. Here the issue is more subtle. If soul is the source of the human perception then this must include the human perception of time. Any concept that is abstract rather than substantial is not necessarily unreal or illusory. For example, one's rationality does not occupy a space inside one's body. It cannot be measured or subjected to physical laws. Another example is the number pi (pie), which is immutable and cannot be located in space and time. In computer analogy if body is the hardware then soul or mind could be compared to software. Therefore in principle it is possible for the mind to survive after death of the brain by transferring it to some other mechanism or system. A deeper and better insight is obtained by studying Quantum physics and mysticism regarding the nature of soul.^V

Michio Kaku, Professor of Theoretical Physicist quotes: "There are vibrations of different universes right here, right now. We're just not in tune with them. There are probably other parallel universes in our living room— this is modern physics. This is the modern interpretation of Quantum theory, that many worlds represent reality." Dr Fred Alan Wolf, an author and physicist remarks: "Today, probably more than in any other day, we are facing a revolution in our thinking about the physical universe—the stuff that you and I are made of. This revolution, brought to a head by the discoveries of the new physics, including relativity and quantum mechanics, appears to reach well beyond our preconceived vision, based as it was on the concept of concrete solid reality."vi Professor John D. Barrow, Department of Applied Mathematics and Theoretical Physics, Cambridge University goes even beyond rarity and subtlety and writes; "In infinite space, even the most unlikely events must take place somewhere. People with the same appearance, name and memories as you, who play out every possible permutation of your life choices may exist." Professor Steven Weinberg, Nobel Laureate in Physics (1979) writes: "There are hundreds of different radio waves being broadcast all around you from distant stations. At any given instant, your office or car or living room is full of these radio waves. However if you turn on a radio, you can listen to only one frequency at a time; these other frequencies are not in phase with each other. Each station has a different frequency, a different energy. As a result, your radio can only be turned to one broadcast at a time. Likewise, in our universe we are tuned into the frequency that corresponds to physical reality. But there are an infinite number of parallel realities coexisting with us in the same room, although we cannot tune into them."

Continuity of Soul / Consciousness after Death:

What is beyond our personal physical body has been given different names such as the soul / conscious / spirit /self etc). Soul is eternal and does not die with the death of our physical body. The fact that abilities of soul or conscious are beyond physical body has been illustrated magnificently by Hadhrat Masih e Maud^{As} in his book 'The philosophy of the Teachings of Islam.' According to his profound study, the soul does not die with the physical death. In the life hereafter it gives birth to another rarer entity, which would occupy the same position in relation to the soul as the soul occupies in relation to our carnal existence here on earth. This birth of a soul from within the soul will be related to the sort of life that we have lived here on earth. If our lives here are spent in submission to the will of God and in accordance with His commands, our tastes gradually become cultured and attuned to enjoying spiritual pleasures as against carnal pleasures. Within the soul a sort of embryonic soul begins to take shape. New faculties are born and new tastes are acquired, in which those accustomed to carnal pleasures find no enjoyment. These new types of refined human beings can find the content of their heart. Sacrifice instead of the usurpation of others' rights becomes enjoyable. Forgiveness takes the upper hand of revenge, and love with no selfish motive is born like a second nature, replacing all relationships that have ulterior motives. Thus, one can say a new soul within the soul is in the offing. vii

In year 2001, two studies regarding continuity of consciousness were published. One study was conducted by British scientists Dr Sam Parnia and Dr Peter Fenwick. It was based on the study of 63 patients that experienced clinical death and had a near death experience (NDE). Clinical death is the medical term for cessation of blood circulation and breathing which are the two essential criteria for sustenance of life. NDE refers to a broad range of personal experiences associated with impending death. It encompasses multiple possible sensations including detachment from the body, feelings of levitation, extreme fear, total serenity, security, warmth, the experience of absolute dissolution and the presence of a light or/and vision.

Out of 63 people 56 did not remember anything of the period when they were clinically dead. However, seven patients had clear memories of what they felt at that period. Four of them said they were overwhelmed with joy and peace and the time was running faster. Then they saw a bright light and saw mythical

creatures that looked like angels or saints. They claimed they had been to another world for some time and then came back. The validity of truth was not questioned since all six people had same description and did not know each other. However, number of study participants was fairly small.

In the same year a much bigger study of 300 NDE patients was reported in the medical journal Lancet. It was carried out by three Dutch scientists under the supervision of Pim van Lomme^{ix}. It also involved people who had experienced clinical death. The results were similar to those of the British scientists.

In both studies death was experienced with functional loss of all functions of the cortex and of the brainstem and yet a clear consciousness was experienced outside the body at a moment when brain no longer functioned and the EEG was flat. Such a brain would be roughly analogous to a computer with its power source unplugged and its circuits detached. It couldn't hallucinate; it couldn't do anything at all. In this state the consciousness and memories should have vanished once the physical body is dead or brain is clinically dead. Contrarily, patients experienced the continuity of their consciousness with much more clarity and vividness and without the conventional body linked concept of time and space.

Soul is a Rare Entity:

Such understanding fundamentally changes one's opinion about death, because of the almost unavoidable conclusion that at the time of physical death consciousness will continue to be experienced in another dimension, in an invisible and immaterial world, the phase-space, in which all past, present and future is enclosed. As Hadhrat Maseeh e Maud has described above, the soul is given a *rare* body in the life hereafter.

Hazrat Khalifatul Maseeh IV ^{ra} in his book "Elementary Teachings of Islam" also describes the *rarity* of the soul. He writes: "In terms of rarity, the soul even in our crudest perception is so rare and ultra-refined that in no way can it be likened to the body that it occupies."

In 1990, the scientific quest about *rarity* or substance of soul led US scientists to determine the weight of soul. The experiment was based on the fact that since soul leaves physical body at the time of death therefore; taking in to account of all the variables; the weight of a person just before dying and soon after death should be different. The dead bodies were weighed before and just after the EEG were

flattened and it was reported that people weighed 2.5 - 6.5 grams lesser after their death. The difference in their weight was considered as the weight of departed soul. Similar experiment was conducted in 1915 in USA by Dr Macdougal and his team with the conclusion that the soul weighed 22.4 grams.

The fact that the Human Soul/self is an independent entity in close proximity of physical or perceptual brain is laid in an article titled "Mapping the Brain" by Haier published in Newsweek dated 20th April 1992. The investigations according to this article yielded that:

- 1) The physical brain is an instrument and not a being in itself;
- 2) That the Self appears as an independent entity simultaneously with the completion of sensuous brain (perceptual brain) during the development of fetus and takes possession of the brain as an instrument before his birth. xiii

Do the Scientists understand what Soul is like?

The scientific efforts to expose the mysteries, wonders and entices of soul are too naïve and futile. The knowledge of soul is with Allah. The Holy Quran says "And they ask thee concerning the **soul**. Say, 'the **soul** is by the command of my Lord; and of the **knowledge** *thereof* you have been given but a little." (17:86)

We have also been told that by virtue of free will, human souls will be brought to accountability:

"There shall every **soul** realize what it shall have sent on before. And they shall be brought back to Allah, their true Master, and all that they used to forge shall be lost to them." (10:31)

"On the day when every **soul** will come pleading for itself, and every **soul** will be fully recompensed for what it did, and they will not be wronged." (16:112)

"Then every **soul** will know what it has brought forward." (81:15)

"Each **soul** shall *then* know what it has sent forth and what it has held back." (82:6)

"Whoso does right does it for his own **soul**; and whoso does wrong, does so to its detriment. Then to your Lord will you *all* be brought back." (45:16)

"Whoso does right, it is for his own **soul**; and whoso does evil, it will *only go* against it. And thy Lord is not at all unjust to *His* servants." (41:47)

"The day when a **soul** shall have no power to do aught for another **soul**!" (82:20)

[&]quot;Every **soul** is pledged for what it has earned." (74:39)

The Holy Quran also tells us that the good deeds, virtuosity, piety and spirituality elevate the status of soul to a contended soul which will head to heaven: "And thou, O soul at peace!" (89:28) "And by the soul and its perfection." (91:8)

The contended soul is created from within an ordinary soul which is explained in the Holy Quran as follows:

"Your creation and your resurrection are only like *the creation and resurrection of* a single **soul.**" (31:29)

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