

LIFE, DEATH, AND SOUL

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ABSTRACT

The subject of the soul—including its origin, nature, and destiny—has long been controversial. Some people believe that there is no such thing as a ‘soul’. Certain individuals advocate the position that only humans possess a soul, but that it ceases to exist at the death of the body. Others seek to maintain that both humans and animals possess a soul, and that those souls likewise die when the physical body dies. Still others are convinced that both animals and humans possess an immortal soul, but that animals do not. What, then, is the truth of the matter? Some believe that science certainly cannot provide the answers to such questions about soul since they lie far beyond the purview of the scientific method. I have tried to present life, death, and soul according to my understanding of science, Nanakian Philosophy, and logic.

INTRODUCTION

I have been involved in this topic since a long, however, I wrote first article on it in The Sikh Review of September 1996. It was criticized by Major Gurmukh Singh. Later a detailed article of Major Gurmukh Singh entitled, "Soul, Death and Metempsychosis in Sikhism." appeared in The Sikh Review, November.1999. I appreciate that Sirdar Saran Singh, the Editor, SR recommended my old article of SR, Sept. 1996 to the readers before reading the Paper of Maj Gurmukh Singh. Maj. Gurmukh Singh has collected a lot of information from the ancient philosophy and has done very good job to prove that the concept of life, death, soul, and metempsychosis is different in Gurbani than that is given in the ancient philosophy. Now Dr Avtar Singh Dhaliwal (See his paper at pp 48-55.) and discussion on the Sikh Diaspora Internet Discussion Group again incited me to write somewhat in more details about this centuries old question: Is there a soul and life after death?

Throughout the whole of human history, man has struggled to find answers to questions that have to do with his origin, existence, nature, and destiny. Such queries are:

Where do I come from?

Why am I here?

Where am I going after death?

Securing clues to the exact makeup of the creature known popularly as Homo sapiens sapiens always has been one of mankind’s keenest intellectual pursuits. And along the way, perhaps no topic has perplexed us, or

piqued our interest, as much as that pertaining to the origin, nature, and destiny of the soul.

Contemplate, if you will, the concept of the soul and the issues that spring from it.

What is the definition of a soul?

If the soul actually exists, what is its origin?

Do humans possess a soul?

Do animals possess a soul?

If souls do, in fact, exist, are they purely temporal—thus living only as long as our corporeal nature exists? Or are they immortal—surviving the death of the physical body?

What is the difference, if any, between the “soul” and the “spirit”?

What is the ultimate destiny of the soul?

Life, death, and soul are very complex phenomena and many scholars and people at large belonging to different religions are under the burden of the ancient philosophy about the life, death, soul, ghost; and nether world, hell, and heaven. Only a few having scientific temper can understand about these phenomena in their real perspective. Before we enter into discussion, it is important to understand about life and death in technical terms.

ORIGIN OF LIFE

(This portion is based on information given in: <http://www.physicalgeography.net/fundamentals/9a.html>)

The sun and its planets formed between 5 and 4.6 billion years ago as matter in our solar system began to coalesce

because of gravity. By about 3.9 billion years ago, the Earth had an atmosphere that contained the right mix of hydrogen, oxygen, carbon, phosphorous, and nitrogen to allow for the creation of life. Scientists believe that the energy from heat, lightning, or radioactive elements caused the formation of complex proteins and nucleic acids into strands of replicating genetic code (DNA). These (DNA – Deoxyribonucleic acid) molecules then organized and evolved to form the first simple forms of life. At 3.8 billion years ago, conditions became right for the fossilization of the Earth's early cellular life forms. These fossilized cells resemble present day cyanobacteria. Such cells are known as prokaryotes. Prokaryote cells are very simple, containing few specialized cellular structures and their DNA is not surrounded by a membranous envelope. The more complex cells of animals and plants, known as eukaryotes, first showed up about 2.1 billion year ago. Eukaryotes have a membrane-bound nucleus and many specialized structures located within their cell boundary. By 680 million years ago, eukaryotic cells were beginning to organize themselves into multicellular organisms. Starting at about 570 million years ago an enormous diversification of multicellular life occurred known as the Cambrian explosion. During this period all but one modern phylum of animal life made its first appearance on the Earth. The lineage of animal leading to the formation of man started about 15 million years ago.

The present man, *Homo sapiens sapiens*, appeared around about 35,000 years ago [2].

LIFE

(This portion is based on information in: <http://newton.dep.anl.gov/askasci/bio99/bio99171.htm>)

In general the following criteria make the object has life:

1. **Motion** -- does it seem to move under its own power? Does it move with some discernible purpose? (Toward food, away from heat, etc)
2. **Reproduction** -- does it have some way of making more of itself, either through sexual reproduction or by budding or fissioning in some way?
3. **Consumption** -- does it eat or drink? Does it take in nutrients in one way or another in order to survive, grow, and eventually multiply?
4. **Growth** -- does the organism develop over time, increase in complexity, until it reaches a mature stage?
5. **Stimulus Response** -- does the organism respond to external stimuli, i.e. has a nervous system of some sort to detect external conditions?

On the other hand crystals grow in solution, and take on more material from the surrounding solution in order to

do so, but do not respond neurologically if you poke them with a pin. Do they have life?

Similarly, you do not see any tree moving on the street. Do they have life?

Even when all the criteria are met, it may be difficult to determine if something is alive or not. Take a virus. It is a strand of either DNA or RNA (Ribonucleic acid), and cannot move on its own power. Yet when it attaches itself to a receptive host, it inserts itself into the cell and forces the host to make more of the virus, a clear reproductive plan. It utilizes the host's cellular processes to do so, in a sense taking in "nutrients" in order to survive and multiply. Is it alive?

Nevertheless, these chemicals, i.e. DNA and RNA govern all the characteristics of all living beings. Are these chemicals or souls? [9]

DEATH

Machado [5] has surveyed literature about death as follows:

"For many centuries people were deemed dead when they stopped breathing and when their hearts stopped beating. But during the era of Intensive Care, cessation of brain functions began to be considered the main reason for diagnosing death. Medical concern over making safe and appropriate diagnosis of BD in respirator-supported patients led to the elaboration of criteria, which reliably established irreversible loss of brain function. This was an operational way of determining that death had occurred.

The definition or conception of death is on the other side of the subject. According to Shewmon there are two basic schools about the definition of human death. Those referring to the "loss of specifically human properties" and those arguing the "loss of integrative unity of the body".

Veatch has proposed to search for the essential property that characterizes life in humans. "What is it about human life, and that its loss is so essential, that the individual who loses it ought be called dead?" I would complete this question as follows. What is it about human life, which is irreplaceable by any artifice, and that its loss is so essential, that the individual who loses it ought be called dead?

Bernat has also proposed to "define death as the permanent cessation of functioning of the organism as a whole". Some authors combine both schools when presenting their definitions of human death.

Machado [5] says that consciousness is the most integrative function of the organism and that it provides

the essential human characteristics. Nonetheless, it is fundamental to consider both components of consciousness: arousal and awareness.”

Therefore, to define human death, the crucial point is to define the function that provides the essential human properties. Machado [5] has no doubts to affirm that consciousness characterizes human existence and that the irreversible loss of consciousness defines human death (considering its two components, arousal and awareness). Moreover, he also considers that at the same time, consciousness is the most integrative function of the body. No other function could integrate as consciousness, the functioning of the organism as a whole, when it is possible.

Nowhere in his study Machando has mentioned any loss of soul as the cause of death. It is because of the loss of consciousness which is the product of neurons in the brain and through these neurons and the nervous system of the body the whole integrated physiological processes of life are going on..

CONSCIOUSNESS

The Interactions of Neurons in the Brain and Generation of Consciousness [6]

The human brain is the most advanced structure known, and its most complicated attribute is consciousness. The human brain is composed of neurons and glia cells. The estimates of the number of neurons in the brain differ, but they reach values of up to 100 billion. Each neuron may be affected by as many as 10,000 other neurons at one time, usually through synapses. The number of synapses is enormous, estimated at 300,000 billion in the cerebral cortex. In the cerebral cortex, at least one quadrillion of nerve cell transactions are executed each second. The function of the central nervous system depends on many serial and parallel interactions of masses of individual neurons. In the brain, we may observe convergence and divergence, feedbacks, reverberations and circulating nerve impulses. The reverberating neuronal circuits may be rather long, lasting up to one second or more. All these events participate in the functioning of neuronal networks, which contain millions of neurons and billions of synapses. Such sequences of neuronal firing are required to respond to the environment in a real, sufficiently short time.

Their approach to understanding the brain function is based on the fact that even the simplest brain functions depend on the activities of enormous numbers of neurons, on their synaptic connections and on associated electrochemical events. The synaptic delay in each of the synapses is at least 0.5 ms and therefore, the parallel and serial interactions between millions or even billions

of neurons would take a very long time, too long for the individual's adequate interaction with the environment in real time. Therefore, they assume that there must be some other, faster mechanism governing the interactions of large numbers of neurons located often far away one from another.

They assume that the localized wave functions of particles form a complicated structure, which changes very quickly with each new neuronal action. It is a two-way process. The activity of neurons generates a massive number of particles, which is able to influence the actions of many target neurons. The affected target neurons generate another set of particles. The process goes forward indefinitely and very quickly and requires a fast decoherence rate. Since the human brain is an organ with a very complicated function, other quantum effects may be present as well, perhaps even some that have not yet been described.

A system of neuronal and submicroscopic actions is produced which we call RHS, Real Human Self. It is called “real” because it is derived from real relations within the brain. It is called “human” because the human brain is the main object of our study even though it is probable that the same, or similar mechanism functions in the brains of at least some higher animals. It is called “self” because it resembles the highest controlling systems proposed. It is possible that it controls all the activities of the brain. It is composed, in our view, of firing neurons associated with the generation of quantum waves of particles with subsequent decoherence. It renews itself continuously, always when a new particle enters or leaves it.

They assume that the triggering of neuronal firing influences only some sensitive neurons in the local network. Larger molecules, neurotransmitters and neuromodulators may be involved as well. This is also a problem, which may be solved by existing electrophysiological methods.

It is possible that a part of this RHS produces a state of consciousness which may be built on the fact that the particles, especially electrons, communicate with one another by “protoconsciousness” which does not contain too specific information or energy transfer but in cooperation with the functioning neurons it may contain and handle a considerable amount of information. Not everything in the RHS produces consciousness; there are many unconscious processes, which are also necessary for the brain function. The consciousness, therefore, forms only a part of the functions of RHS.

CONCEPTS OF SOUL

A. According to Webster's Dictionary Soul is:

1. An entity, which is regarded as being the immortal or spiritual part of the person and, though having no physical or material reality, is credited with the functions of thinking and willing, and hence determining all behavior.
2. Vital or essential part, quality, or principle! "brevity is the soul of wit"
3. The person who leads or dominates; central figure! "Daniel Boone, soul of the frontier".
4. Embodiment; personification! "the very soul of kindness".
5. A person! "a town of 1,000 souls".
6. The spirit of a dead person, thought of as separate from the body and leading an existence of its own

B. Ancient Philosophers

(The following portion is based on information in: http://www.free-definition.com/Soul.html#Science_and_the_soul)

i) Socrates and Plato

Plato, probably quoting Socrates, considers the soul to be the essence of a person that reasons, decides and acts. He considered this essence to be an incorporeal occupant of the body with its own separate, and immortal, existence.

ii) Aristotle

Aristotle, following Plato, defined the soul as the core essence of a being, but argued against it having a separate existence. Aristotle's view appears to have some similarity to the Buddhist 'no soul' view (see below). For both there is certainly no 'separable immortal essence'.

C. Theological Concept

In some traditions it is considered immortal; in others it is considered to be mortal. In most religions, and some philosophical movements, a soul is strongly connected with notions of the afterdeath but opinions vary wildly even within a given religion as to what happens to the soul after death. Many within these religions and philosophies believe the soul is immaterial, while others feel it may indeed be material.

i) Buddhist beliefs

According to Buddhist teaching, all things are impermanent, in a constant state of flux, all is transient, and there is no abiding state. This applies to humanity as much as anything else in the cosmos; thus, there is no unchanging and abiding self. Our sense of "I" or "me" is simply a sense belonging to the ever-changing entity that is us, our body, and mind. This in essence is the Buddhist principle of *anatta* (Pāli; Sanskrit: *anātman*).

The ineffable state of nirvana is solely recognized as being distinct. Buddhists can speak in conventional

terms of the soul or self as a matter of convenience, but only under the conviction that ultimately "we" are changing entities. At death, the body and mind disintegrate; if the disintegrating mind contains any remaining traces of karma, it will cause the continuity of the consciousness to bounce back an arising mind to an awaiting being, that is, a fetus developing the ability to harbor consciousness. Thus, in Buddhist teaching, a being that is born is neither entirely different nor exactly the same as it was prior to rebirth. In Eastern Buddhism some variations have occurred in the concept of soul.

Many modern Buddhists, particularly in Western countries, reject the concept of rebirth or reincarnation as being incompatible with the concept of *anatta*. They take the view that if there is no abiding self and no soul then there is nothing to be reborn. This is notably discussed by Stephen Batchelor in his book '*Buddhism Without Beliefs*'

ii) Christian beliefs

Most Christians believe the soul to be the immortal essence of a human, and that after death, the soul is either rewarded or punished. Whether this reward or punishment is contingent upon doing good deeds, or merely upon believing in God and Jesus, is a heated dispute among different Christian groups.

iii) Hindu beliefs

In Hinduism, the Sanskrit word most closely corresponding to soul is "Atma", which can mean soul or even God. It is seen as the portion of Brahman within us. Hinduism contains many variant beliefs on the origin, purpose, and fate of the soul. For example, *advaita* or non-dualistic conception of the soul accords it union with Brahman, the absolute uncreated (roughly, the Godhead), in eventuality or in pre-existing fact. *Dvaita* or dualistic concepts reject this, instead identifying the soul as a different and incompatible substance.

iv) Islamic beliefs

According to the Qur'an of Islam (15:29), the creation of man involves God "breathing" a soul into him. This intangible part of an individual's existence is "pure" at birth and has the potential of growing and achieving nearness to God if the person leads a righteous life. At death the person's soul transitions to an eternal afterlife of bliss, peace and unending spiritual growth (Qur'an 66:8). This transition can be pleasant (Heaven) or unpleasant (Hell) depending on the degree to which a person has developed or destroyed his or her soul during life (Qur'an 91:7-10).

v) Jainist beliefs

Jainists believe in a *jiva*, an immortal essence of a living being analogous to a soul, subject to the illusion of

Maya and evolving through many incarnations from mineral to vegetable to animal, its accumulated karma determining the form of its next birth.

vi) Jewish beliefs

Jewish views of the soul begin with the book of Genesis, in which verse 2:7 states, "the LORD God formed man from the dust of the earth. He blew into his nostrils the breath of life, and man became a living being."

The Hebrew Bible offers no systematic definition of a soul; various descriptions of the soul exist in classical rabbinic literature.

vii) Other religious beliefs and views

In Egyptian Mythology, a person possessed six souls, three of the body and three of the mind. They were called *Chet, Ren, Schut, Ka, Ba, and Ach*.

Some transhumanists believe that it will become possible to perform mind transfer, either from one human body to another, or from a human body to a computer. Operations of this type (along with teleportation), raise philosophical questions related to the concept of the Soul.

Crisscrossing specific religions, the phenomena of therianthropy and belief in the existence of otherkin have also been observed. These can perhaps better be described as phenomena rather than beliefs, since people of varying religion, ethnicity, or nationality may believe in them. Therianthropy is the belief that a person or his soul has a spiritual, emotional, or mental connection with an animal. Such a belief manifests in many forms, and the reasons for it are often explained in terms of the person's religious beliefs. A similar belief is that held by otherkin, who generally believe their souls are entirely non-human, and usually not of this world.

Another fairly large segment of the population, not necessarily favoring organized religion, simply label themselves as spiritual and hold that both humans and all other living creatures have souls. Some further believe the entire universe has a cosmic soul as a spirit or unified consciousness. Such a conception of the soul may be linked with the idea of an existence before and after the present one, and could be considered as the spark, or the self, the "I" in existence that feels and lives life.

Some believe souls in some way "echo" to the edges of this universe, or even to multiple universes with compiled multiple possibilities, each presented with a slightly different energy version of itself. Such ideas have been explored for example by science fiction author, Robert Heinlein.

D. The atheist view

Many secular humanists and atheists reject the concept of a soul, often viewing it as an ill-defined idea for which they do not find any compelling evidence. Some of them consider the idea to be borne of wishful thinking. They could perhaps accept the existence of the soul, however, if it were defined in a radically different way, and there is some justification for doing so in a non-religious way. Aristotle's formulation, for example, would allow atheists to continue using common phrases like 'poor soul' and 'he's a good soul' without feeling they are using a meaningless term. Such a formulation fits the way the term is used in many contexts, allowing, for example, the term to be extended to machines, making the title of Tracy Kidder's book, "The Soul of a New Machine," meaningful.

E. Science and the soul

The concept of soul and the idea of a soul entity are not recognized in mainstream science or medicine. Popular presentation of the dominant scientific worldview of the soul uses the "computer paradigm", where the brain is compared to the hardware and the mind (mental processes that have been long subsumed under the concept of soul) to the software. When the brain/hardware is gone, there is no place left for functioning mind/software. Others, like famous French Neurologist, Jean Pierre Changeaux, deny the appropriateness of the computer paradigm and propose an analogy with the anharmonic oscillator from physics. Needless to say, both notions have dismissed to concept of soul as a self-sustaining entity. Some have tried to measure the soul, for example by attempting to measure the weight of a person just before and just after death in hopes of determining the weight of a soul. The results of these experiments are equivocal, especially due to conflicting reports on the findings.

LIFE, DEATH, AND SOUL ACCORDING TO NANAKIAN PHILOSOPHY

Many Sikh scholars interpret Gurbani under the influence of the ancient philosophy and ignore the scientific information available and application of logic. I have explained in my previous articles that interpretation of Gurbani is not an easy task. This is a big task, which will be discussed some other time. However, one must keep in mind that if there is no contradiction in the basic philosophy in Gurbani then there cannot be two different views on soul in Gurbani. I am going to quote a few verses of Guru Nanak about life and death, which do not support the existence of a soul, which leave the body after death to be transmigrated into another body (transmigration - cycle of re-birth), or merged into God.

Life and Consciousness

Let us first consider the origin of man according to Nanakian Philosophy. Guru Nanak's following verse explains the formation of human body without mentioning about soul. However the mention of Dasam Duar means brain, which has the consciousness to be aware of everything:

ਪਉਣੈ ਪਾਣੀ ਅਗਨੀ ਕਾ ਮੇਲੁ ॥

ਚੰਚਲ ਚਪਲ ਬੁਧਿ ਕਾ ਖੇਲੁ ॥

ਨਉ ਦਰਵਾਜੇ ਦਸਵਾ ਦੁਆਰੁ ॥

ਬੁਝੁ ਰੇ ਗਿਆਨੀ ਏਹੁ ਬੀਚਾਰੁ ॥੧॥

ਕਥਤਾ ਬਕਤਾ ਸੁਨਤਾ ਸੋਈ ॥

ਆਪੁ ਬੀਚਾਰੇ ਸੁ ਗਿਆਨੀ ਹੋਈ ॥੧॥ ਰਹਾਉ ॥

AGGS, M 1, p 152 [1].

The combination of air, water, and energy (various elements) make the body and mind (intellect) to work.

There are nine openings in this body and the tenth is the brain (Dasam Duar).

Reflect upon this and understand it, O wise one. 1.

One teaches, speaks, and listens by the use of this mind (Dasam Duar).

One, who contemplates of his own on this system, is truly a wise person. 1. Pause.

Note: 'Dasam Duar' = It is not a mythical door or opening. It is a brain, which has contact with the whole body and generates consciousness to be aware of everything by the action of billions of neurons. In other words 'Dasam Duar' (brain) is connected (open) to the inside of the whole body as well as outside of the body through its nervous system [5, 6].

The following phrase of Guru Nanak explains that every thing (living or non-living) has the same energy:

ਸਭ ਮਹਿ ਜੋਤਿ ਜੋਤਿ ਹੈ ਸੋਇ ॥

ਤਿਸ ਦੈ ਚਾਨਣਿ ਸਭ ਮਹਿ ਚਾਨਣੁ ਹੋਇ ॥

ਗੁਰ ਸਾਖੀ ਜੋਤਿ ਪਰਗਟੁ ਹੋਇ ॥

ਜੋ ਤਿਸੁ ਭਾਵੈ ਸੁ ਆਰਤੀ ਹੋਇ ॥੩॥

AGGS, M 1, p 13.

(Note: 'Jot' is interpreted as 'energy' and /or 'consciousness' here.)

Everybody has the same energy from which consciousness is radiating (Illuminating) in everybody.

Radiation of energy/consciousness is discovered through the Guru's teachings.

Whatever is already happening is happening as God wishes (i.e. under the Laws of Nature) and that is the real worship of the Almighty. 3.

Now Guru Nanak has explained that 'energy', in the above phrase, as 'consciousness' in the following verse:

ਏਕਾ ਸੁਰਤਿ ਜੇਤੇ ਹੈ ਜੀਅ ॥

ਸੁਰਤਿ ਵਿਹੂਣਾ ਕੋਇ ਨ ਕੀਅ ॥

ਜੇਹੀ ਸੁਰਤਿ ਤੇਹਾ ਤਿਨ ਰਾਹੁ ॥

ਲੇਖਾ ਇਕੋ ਆਵਹੁ ਜਾਹੁ ॥੧॥

ਕਾਹੇ ਜੀਅ ਕਰਹਿ ਚਤੁਰਾਈ ॥

ਲੇਵੈ ਦੇਵੈ ਢਿਲ ਨ ਪਾਈ ॥੧॥ ਰਹਾਉ ॥

AGGS, M 1, p 24.

There is consciousness in every being.

None has been created without consciousness.

As is their consciousness works, so is their mind and body works.

There is one rule for everybody (Same Laws of Nature) under which every being are born and die. 1.

Cleverness (cheating) does not work (since every thing is going on according to the Laws of Nature) and there is no delay (in their reaction). 1.Pause.

Death

Guru Nanak explains Death as follows:

ਦੇਹੀ ਮਾਟੀ ਬੋਲੈ ਪਉਣੁ ॥

ਬੁਝੁ ਰੇ ਗਿਆਨੀ ਮੂਆ ਹੈ ਕਉਣੁ ॥

ਮੁਈ ਸੁਰਤਿ ਬਾਦੁ ਅਹੰਕਾਰੁ ॥

ਓਹੁ ਨ ਮੂਆ ਜੋ ਦੇਖਣਹਾਰੁ ॥੨॥

AGGS, M 1, p 152.

The body is made of earth (various elements) through which one speaks is the vibration of wind.

Try to understand, O wise one, who has died?

It is the consciousness with which the whole body functions, has died. With this the egoistic nature, a product of consciousness, has also died.

What you see, the body is not dead (in fact it was the consciousness in the brain, which stopped working). 2.

Medically the death is that the consciousness becomes un-functional (dies). The consciousness is the product of billions of neurons in the brain. Therefore, when brain is dead then consciousness becomes dead later on the body's physiology stops. However, after the death of the brain the body can be kept functional for some days or months with the respirators, which helps to circulate blood in the body [5, 6].

Here again Guru Nanak has not mentioned anything about the fate of soul in the body that what happened to it after death.

Now Guru Nanak explains that it is not known where does one (soul) come from and where does one (soul) go after the death:

ਜਾਤੋ ਜਾਇ ਕਹਾ ਤੇ ਆਵੈ ॥

ਕਹ ਉਪਜੈ ਕਹ ਜਾਇ ਸਮਾਵੈ ॥

ਕਿਉ ਬਾਧਿਓ ਕਿਉ ਮੁਕਤੀ ਪਾਵੈ ॥

ਕਿਉ ਅਬਿਨਾਸੀ ਸਹਜਿ ਸਮਾਵੈ ॥੧॥

ਨਾਮੁ ਰਿਦੈ ਅੰਮ੍ਰਿਤੁ ਮੁਖਿ ਨਾਮੁ

ਨਰਹਰ ਨਾਮੁ ਨਰਹਰ ਨਿਹਕਾਮੁ ॥੧॥ ਰਹਾਉ ॥

ਸਹਜੇ ਆਵੈ ਸਹਜੇ* ਜਾਇ ॥

ਮਨ ਤੇ ਉਪਜੈ ਮਨ ਮਾਹਿ ਸਮਾਇ ॥

ਗੁਰਮੁਖਿ ਮੁਕਤੋ ਬੰਧੁ ਨ ਪਾਇ ॥
ਸਬਦੁ ਬੀਚਾਰਿ ਛੁਟੈ ਹਰਿ ਨਾਇ ॥੨॥

AGGS, M 1, p 152.

How can we know where did we come from?

Where did we originate, and where will we go or merge into?

How are we bound, and how are we liberated?

How do we merge with Indestructible Entity with ease? 1.

The Naam (comprehension of God) in the heart is the elixir (Amrit) of life,

The Naam is God, and God is free from any desire. 1. Pause.

Under the Laws of Nature one comes (born) and under the same laws one goes away (die).

Consciousness arises in the mind (with neurons in the brain) and is destroyed in the brain.

Through the comprehension of wisdom (philosophy) in the Sabd (Nanakian Philosophy) the Guru-oriented is liberated and does not fall into any bondage. 2.

**Sehj, Sejay*, etc has many meanings. It is to be seen in which context it has been used. It means easily, wisdom, tranquility, etc. Sahib Singh also interprets it as 'According to Laws of Nature' at page 11, Volume II. [7].

Treatment of Body after Death

Guru Nanak has explained in the following verse that whatever the respect or treatment is given to the (dead) body, it does not make any difference whether the soul of that body will go to heaven or is free from cycle of re-birth:

ਇਕ ਦਝਹਿ ਇਕ ਦਬੀਅਹਿ ਇਕਨਾ ਕੁਤੇ ਖਾਹਿ ॥

ਇਕਿ ਪਾਣੀ ਵਿਚਿ ਉਸਟੀਅਹਿ ਇਕਿ ਭੀ ਫਿਰਿ ਹਸਣਿ ਪਾਹਿ ॥

ਨਾਨਕ ਏਵ ਨ ਜਾਪਈ ਕਿਥੈ ਜਾਇ ਸਮਾਹਿ ॥੨॥

AGGS, M 1, p 648.

Nanak Says:

"After death some bodies are burnt, some are buried and some are left to be eaten by dogs (and vultures). Some are thrown in water, while some are thrown in dried well.

(Whatever may the method of disposal) There is no evidence where one (so-called soul) goes after death."

Guru Nanak again states that there is no world after death where one will reap the benefits/punishments of Karma of this life:

ਮਤੁ ਕੇ ਜਾਣੇ ਜਾਇ ਅਗੈ ਪਾਇਸੀ ॥

ਜੇਹੇ ਕਰਮ ਕਮਾਇ ਤੇਹਾ ਹੋਇਸੀ ॥

AGGS, M1, p 729-730.

Nanak Says:

"One must not understand that the benefit of karmas of the current life are rewarded in the next world.

It is here in this world 'what you sow so shall you reap'."

Interpretation and Strengthening of Nanakian Philosophy

The Nanakian Philosophy has been interpreted and strengthened by the Sikh Gurus who succeeded to the House of Nanak. Taran Singh [8] also says that the Sikh Gurus were the first who have interpreted the Bani of Guru Nanak in their own Bani. Some of their interpretations of Nanakian Philosophy about life, death and soul in their own Bani are as follows:

i) By Guru Amardas, Third Guru to the House of Nanak

ਮਨ ^੧ ਤੂੰ ਜੋਤਿ ^੨ ਸਰੂਪ ^੩ ਹੈ ਆਪਣਾ ਮੂਲ ^੪ ਪਛਾਣੁ ^੫ ॥

ਮਨ ਹਰਿ ^੬ ਜੀ ਤੇਰੈ ਨਾਲਿ ਹੈ ਗੁਰਮਤੀ ^੭ ਰੰਗੁ ^੮ ਮਾਣੁ ^੯ ॥

ਮੂਲੁ ਪਛਾਣਹਿ ਤਾਂ ਸਹੁ ^{੧੦} ਜਾਣਹਿ ਮਰਣ ਜੀਵਣ ਕੀ ਸੋਝੀ ਹੋਈ ॥

ਗੁਰ ਪਰਸਾਦੀ ਏਕੋ ਜਾਣਹਿ ਤਾਂ ਦੂਜਾ ਭਾਉ ਨ ਹੋਈ ॥

ਮਨਿ ਸਾਂਤਿ ਆਈ ਵਜੀ ਵਧਾਈ ^{੧੧} ਤਾ ਹੋਆ ਪਰਵਾਣੁ ^{੧੨} ॥

ਇਉ ਕਹੈ ਨਾਨਕੁ ^{੧੩} ਮਨ ਤੂੰ ਜੋਤਿ ਸਰੂਪੁ ਹੈ ਅਪਣਾ ਮੂਲੁ ਪਛਾਣੁ ॥ ੫ ॥

AGGS, M 3, p 441.

For proper interpretation of this verse it is important to understand in which context allegories have been used here:

1. 'Mann' means the mind, which is a place of origin of all thoughts.
2. 'Jot' means energy, flame, light, spiritual illumination, enlightenment. Here energy is more suitable meaning.
3. 'Sarup' means embodiment.
4. 'Mool' means the roots, origin.
13. 'Aeyoh kahae Nanak' Here Nanak is not a pen name of Guru Amardas as is for all the other Sikh Gurus. Here Nanak is the Guru Nanak himself, whose philosophy was preached and taught by the Sikh Gurus, who succeeded to the 'House of Nanak'. According to Dr Sahib Singh's grammar 'Nanak' with 'onkar' to 'kaka' means Nanak himself not as a pen name (Nom de Plume). In some cases the 'kaka' is without 'onkar' in 'Nanak' even then it means Guru Nanak himself.

Therefore, 'Aeyoh kahae Nanak' is interpreted as 'Guru Nanak says the same philosophy'. It means it is the Philosophy of Guru Nanak, i. e. Nanakian Philosophy, being interpreted by Guru Amardas. But most of the interpreters, except Dr Sahib Singh, translate 'Nanak' as a pen name for Guru Amardas (Mahla 3). Then it becomes the saying of Guru Amardas, In fact it is philosophy of Guru Nanak being represented by Guru Amardas.

Keeping in view the above explanation and scientific information available and logic, the above verse has been interpreted as follows:

"Hey mind ¹! You are the embodiment ³ of energy², try to trace out ⁵ your roots ⁴ (origin).

Hey mind! The Almighty ⁶ is with you and enjoy ⁹ and imbibe ⁸ the philosophy ⁷ of the Guru (Nanak).

When you have traced out your roots (origin) then you will understand about death and life.

With the grace of the Almighty ¹⁰ you would realize that there is no other than the One (the God). Then mind attains peace (contentment) and success ¹², (Then everybody) congratulates ¹¹ you.

Guru Amardas says:

It is the Nanakian Philosophy ¹³ (Literal meaning = Nanak says the same the philosophy): Hey mind! You are the embodiment of energy. Try to trace out your roots (origin)."

(Note: Most of the time, ਮਨ ਤੂੰ ਜੋਤਿ ਸਰੂਪ ਹੈ ਆਪਣਾ ਮੂਲੁ ਪਛਾਣ*], is interpreted by many scholars as follows:

"Oh my soul, you have emanated from the light of God, know your true essence."

Since some portion of the genome of the human resembles with the smallest organism, like yeasts, molds, slimes, worms, and lettuce (plant); 90% resembles with mice, and 98% with chimpanzees, therefore, it clearly indicates that we can trace back our roots (mool) to primate (chimpanzees) to mice to plants (lettuce) to microorganisms (yeasts, molds, slimes) and then ultimately to the primordial source (Jot), the Energy, as explained in the above verse. (Also see 'Origini of Life at page 66.)

ii) By Guru Arjan, Fifth Guru to the House of Nanak

Guru Arjan also explains the evolution of man through different stages of various living forms starting from the smallest organism as follows:

ਕਈ ਜਨਮ ਭਏ ਕੀਟ ਪਤੰਗਾ ॥

ਕਈ ਜਨਮ ਗਜ ਮੀਨ ਕੁਰੰਗਾ ॥

ਕਈ ਜਨਮ ਪੰਖੀ ਸਰਪ ਹੋਇਓ ॥

ਕਈ ਜਨਮ ਹੈਵਰ ਬ੍ਰਿਖ ਜੋਇਓ ॥੧॥

ਮਿਲੁ ਜਗਦੀਸ ਮਿਲਨ ਕੀ ਬਰੀਆ ॥

ਚਿਰੰਕਾਲ ਇਹ ਦੇਹ ਸੰਜਰੀਆ ॥੧॥ ਰਹਾਉ ॥

ਕਈ ਜਨਮ ਸੈਲ ਗਿਰਿ ਕਰਿਆ ॥

ਕਈ ਜਨਮ ਗਰਭ ਹਿਰਿ ਖਰਿਆ ॥

ਕਈ ਜਨਮ ਸਾਖ ਕਰਿ ਉਪਾਇਆ ॥

ਲਖ ਚਉਰਾਸੀਹ ਜੋਨਿ ਭ੍ਰਮਾਇਆ ॥੨॥

ਸਾਧਸੰਗਿ ਭਇਓ ਜਨਮੁ ਪਰਾਪਤਿ ॥

ਕਰਿ ਸੇਵਾ ਭਜੁ ਹਰਿ ਹਰਿ ਗੁਰਮਤਿ ॥

ਤਿਆਗਿ ਮਾਨੁ ਬ੍ਰੁਠੁ ਅਭਿਮਾਨੁ ॥

ਜੀਵਤ ਮਰਹਿ ਦਰਗਹ ਪਰਵਾਨੁ ॥੩॥

ਜੋ ਕਿਛੁ ਹੋਆ ਸੁ ਤੁਝ ਤੇ ਹੋਗੁ ॥

ਅਵਰੁ ਨ ਦੂਜਾ ਕਰਣੈ ਜੋਗੁ ॥

AGGS, M 5, p 176.

You passed through many generations as a worm and an insect;

You passed through many generations as an elephant, a fish, and a deer.

You passed through many generations as a bird, and a snake.

You passed through many generations as a yoked ox, and a horse.1.

Now is the time to comprehend the God.

Since after so very long time, this human body was evolved. 1.Pause.

You passed through many generations as rocks and mountains*;

Your many generations were aborted** in the womb;

You passed through many generations as branches and leaves (vegetative states);

You (man) passed through 8.4 million (tentative figure) of generations of evolution. 2.

Since you (man) have attained this human life, now is the time to serve the humanity and comprehend God.

Abandon the pride and falsehood and ego. If you kill these vices then you will be accepted by God. 3.

Whatever is happening (evolution) is happening under the Laws of Nature and nothing is happening otherwise.

*Rocks and mountains mean remained inanimate like, carbon, hydrogen, oxygen, phosphorous, and nitrogen, which gave rise to DNA ultimately to form animates.

**Abort mean the unfavorable mutations are either aborted as early as in the womb or after being born.

In the above verses Guru Amardas and Guru Arjan had explained the theory of evolution based on Nanakian Philosophy although sequence of evolution is not the same as proposed by Darwin about 300 years after Guru Nanak.

There is in another verse by Guru Arjan which also indicate the attaining of human form through evolution:

ਭਈ ਪਰਾਪਤਿ ਮਾਨੁਖ ਦੇਹੁਰੀਆ ॥

ਗੋਬਿੰਦ ਮਿਲਣ ਕੀ ਇਹ ਤੇਰੀ ਬਰੀਆ ॥

AGGS. M 5, p 378.

Since you have attained this form of human body after a long and continuous process of evolution, now is the time to understand and realize the Almighty.

He has further mentioned that evolution of man is at the highest level of evolution and he is the commander of all the living beings:

ਅਵਰ ਜੋਨਿ ਤੇਰੀ ਪਨਿਹਾਰੀ ॥
ਇਸੁ ਧਰਤੀ ਮੀਹ ਤੇਰੀ ਸਿਕਦਾਰੀ ॥

AGGS, M 5, p 374.

All the other beings (excluding human) are at your service. You are the commander on this earth.

The above verses clearly encourage the human to discover his roots. Recently the scientists have almost completed the sequencing of human genome, The Book of Life. Bill Clinton, US President has expressed mapping of human genome as follows: “Today we are learning the language in which God created life. We are gaining ever more awe for the complexity, the beauty, the wonder of God’s most divine and sacred gift.” Bill Clinton further said that: “If the project (The Book of Life) proves anything, it is the most important fact of life on this Earth is our ‘common community’ [CNN.com, June 27, 2000]. The human being, as a common community, is the basic principle of the Nanakian philosophy that was taught about 500 years ago by the Sikh Gurus of the Nanakian School. The scientists have now discovered this fact that all the humans are a ‘common community’ [See ref # 2].

Now the next questions are:
What is the role of soul in the evolution process?
Where does soul go after death?

Guru Arjan interpreted or summarized the Nanakian Philosophy about life, and death in his Bani as follows:
ਪਵਨੈ ਮਹਿ ਪਵਨੁ ਸਮਾਇਆ ॥

ਜੋਤੀ ਮਹਿ ਜੋਤਿ ਰਲਿ ਜਾਇਆ ॥

ਮਾਟੀ ਮਾਟੀ ਹੋਈ ਏਕ ॥

ਰੋਵਨਹਾਰੇ ਕੀ ਕਵਨ ਟੇਕ ॥ ੧ ॥

ਕਉਨੁ ਮੁਆ ਰੇ ਕਉਨੁ ਮੁਆ ॥

ਬ੍ਰਹਮ ਗਿਆਨੀ ਮਿਲਿ ਕਰਹੁ ਬੀਚਾਰਾ ਇਹੁ ਤਉ ਚਲਤੁ ਭਇਆ ॥ ੧ ॥
ਰਹਾਉ ॥

ਅਗਲੀ ਕਿਛੁ ਖਬਰਿ ਨ ਪਾਈ ॥

ਰੋਵਨਹਾਰੁ ਭਿ ਊਠਿ ਸਿਧਾਈ ॥

ਭਰਮ ਮੋਹ ਕੇ ਬਾਂਧੇ ਬੰਧ ॥

ਸੁਪਨੁ ਭਇਆ ਭਖਲਾਏ ਅੰਧ ॥ ੨ ॥

ਇਹੁ ਤਉ ਰਚਨੁ ਰਚਿਆ ਕਰਤਾਰਿ ॥

ਆਵਤ ਜਾਵਤ ਹੁਕਮਿ ਅਪਾਰਿ ॥

ਨਹ ਕੋ ਮੁਆ ਨ ਮਰਣੈ ਜੋਗੁ ॥

ਨਹ ਬਿਨਸੈ ਅਬਿਨਾਸੀ ਹੋਗੁ ॥ ੩ ॥

ਜੋ ਇਹੁ ਜਾਣਹੁ ਸੋ ਇਹੁ ਨਾਹਿ ॥

ਜਾਨਣਹਾਰੇ ਕਉ ਬਲਿ ਜਾਉ ॥

ਕਹੁ ਨਾਨਕ ਗੁਰਿ ਭਰਮੁ ਚੁਕਾਇਆ ॥

ਨਾ ਕੋਈ ਮਰੈ ਨ ਆਵੈ ਜਾਇਆ ॥ ੪ ॥ ੧੦

AGGS, M 5, p 885.

The air (gases) merges into the air.

The energy is amalgamated with energy.

The minerals (of body) become part of the soil.

Who will take care of those who are lamenting? 1

(The lamenting persons will also be dying.)

O wise men try to comprehend together who has died?

*In fact (a person came and now) that person has gone. 1
(Pause)*

(Actually) no one knows what happens after death.

The one who is lamenting will also depart.

Mortal beings are bound by superstitions and attachments.

The ignorant person (blind) is baffled as if it is dream. 2

Everybody is born and dies according to the Laws of Nature, the system developed by the Creator.

(In fact) No one dies; no one is capable of dying, since the matter, with which, the being come into existence is indestructible. 3*

What the people think it is not like that.

I am a sacrifice to the one who knows this.

Nanak says: the Guru has dispelled my doubt that in fact no one dies and no one is born or dies. (It is just the change of matter into different forms.) 4. 10.

**Matter is also considered as energy.*

The above verse emphasizes that to understand life and death it is important to know your own roots (origin) where did man come from on this earth. The origin of man is directly related to evolution theory as has been explained earlier. According to this theory the elements, Carbon, Oxygen, Hydrogen, Phosphorus, Nitrogen, etc, combined into complex molecule called DNA - the thread of life. From the DNA came the single-celled organism, which gave rise to multicellular organism and ultimately man the most complex and advanced stage of evolution as explained above by Guru Amardas and Guru Arjan:

Final Message

Keeping in view the Nanakian Philosophy Guru Arjan advises the humanity to get the best out of this life since there is no life after death:

ਆਗਾਹਾ ਕੂ ਤ੍ਰਾਘਿ ਪਿਛਾ ਫੇਰਿ ਨ ਮੁਹਡਤਾ ॥

ਨਾਨਕ ਸਿਝਿ ਇਵੇਹਾ ਵਾਰ ਬਹੁਤਿ ਨ ਹੋਵੀ ਜਨਮਤਾ ॥੧॥

AGGS, M 5, p 1096.

Nanak says:

"Think about the future, look not on the past.

Make the present life a great success

Because there is no birth again."

IS IT TRANSMIGRATION OF SOUL OR DNA?

i) Transmigration of Soul

Keeping in view the philosophy of other religions, Nanakian Philosophy, science and logic it becomes clear that:

1. The souls of people belonging to certain religions keep on waiting for the Day of Judgment. On this day the deeds of the dead persons will be evaluated then the fate of their souls will be decided. Their souls would either go to heaven or to hell depending on the evaluation of their deeds. But no soul goes into cycle of transmigration of 8.4 million of lives. However, there has not been any Day of Judgment so far for the last over 2000 years. Nobody knows when it will happen.
2. In Hinduism the soul either immediately goes into cycle of transmigration of 8.4 million lives or again into human form or merges with God depending upon their deeds conducted during the past life of that person.
3. Logically, if God is the same for the whole humanity on this earth then God cannot create two types of laws for two different types of peoples. Is it not a strange law of God that the souls of some are waiting for the Day of Judgment while of others immediately go to the cycle of transmigration?
4. Scientifically there is no soul. The whole physiology of the body is governed by the consciousness, which is also believed in Nanakian Philosophy. The consciousness is the product of actions of billions of neurons in the brain [5, 6].
5. The functions of the neurons to produce consciousness, which controls all the actions and reactions in the body, depend upon the nature and composition of the DNA of that person (or organism) [9].
6. Since the consciousness is the result of purely chemical, physical, and biological reactions, therefore, there is no consciousness if neurons in the brain are not functioning. The death of neurons results in the death of consciousness. The death of consciousness result in the death of all physiological reactions, consequently the death of the body.
7. Consciousness is only in a certain portion of the brain, similarly, memory function is carried on in another part of the brain. The memory is stored in this part of the brain. This memory part is definitely not a soul according to science and religious beliefs. However, it is well established that injury to this part of brain a person loses his memory only but that person is still alive in all aspects of life. Now there is a big question that the memory of a person is in a particular part of brain and that part of the brain is not a soul. Since memory is stored in a certain part of brain, therefore, memory is not stored in the soul. It is evident that soul cannot carry memory of its past life to the next life. Therefore, the soul cannot carry his karma with it, which will be manifested in

the next life. Similarly, the claim of remembering the events of the past life by some individuals cannot be justified even by simple logic.

ii) Transmigration of DNA.

1. Biologically and genetically it is well- established fact that all the characteristics of a person are governed by its DNA (genome) [9].
2. When a scientist creates a clone he uses the diploid genome from a cell of a donor person to create the same copy of that person. Now the question is if the clone is a perfectly a new person then wherefrom did the clone receive new soul with which the clone has become another alive person like the donor. Since soul is supposed to be indivisible, then no part of donor's soul can pass on to the clone.
3. In nature fertilization of an egg from mother with a sperm of father-- the haploid genome of father's sperm combines with the haploid genome in the mother's egg -- produces a diploid zygote, which gives rise to a new baby.
4. The new baby, which came into being because of the combination of haploid genomes from mother and father, is in fact the next so-called *juun* (transmigration) of the parents (mother and father) while they are still alive.
5. Since the new baby is the next *juun* of the parents, therefore, it is the responsibility of the parents to nurture the new baby (in fact that is their next *juun*) to be an independent and noble citizen of this earth. Under such circumstances it also becomes important to choose a partner who can stick to these understandings that they are marrying to produce their next *juun*, which should be better than their own. It means neglecting their offspring means neglecting their next *juun*.
6. I may add here that it is also well established [9] that the destiny of the new baby (your next *juun*) depends on the Nature (DNA of the parents) and the Nurture (environment and the care by the parents).

CONCLUSIONS

1. There is NO evidence of existence of soul.
2. There is also NO evidence that the soul will be entering into the cycle of transmigration of 8.4 million.
3. In fact, it is the transmigration of the DNA, not the so-called soul, into their next *juun* (generation).
4. It also means that the next *juun* (generation) of parents is being nurtured by themselves. And it is in their hands to make their next *juun* as successful as they wish.
5. However, it must be kept in mind that the destiny (growth and development of your next *juun* (generation) depends on the nature (DNA of the parents) and the nurture (food, environments, care

provided by the parents).

Some Quotable Quotes

Genes determines the range through which we can be modified, which is another way to say that you can't teach a carrot to sing.

R. Grant Steen [9]

If the misery of our poor be caused not by the laws of nature, but by our institutions, great is our sin."

Charles Darwin, Voyage of Beagle. [From Ref # 9]

Lesson to learn

It is a fact that the misery is due to our institutions, which teach that misery is the result the past karmas of the miserable people and they have to suffer. This is the greatest sin being committed by religious institutions that teach that misery is due to the bad deeds (Karmas) of the past lives.

Guru Nanak not only realized this institutionalized sin being committed by some religions about three hundred years before Darwin but also recommended the solution:

ਵਿਦਿਆ ਵੀਚਾਰੀ ਤਾਂ ਪਰਉਪਕਾਰੀ ॥

AGGS, M 1, p 356.

Only that education (knowledge) is worth which is used for the uplift of the humanity.

That Education is worth which is used to teach that misery is not due to the karmas of the past lives and that

misery can be eliminated, by putting the education in welfare of the humanity and teaching them that misery is not due to their past karmas.

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