

# Atman (Soul) carries Karma to the next life and beyond, a narrative review with scientific perspectives

Dr Sukanta Saha  
Queensland, Australia

Dr Nemai C Karmakar  
Department of Electrical and Computer Systems Engineering  
Monash University, Melbourne, Australia,

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## Abstract

*Background and Aims:* Vedic scriptures dictate that every living being goes through a cycle of birth and death until final liberation, and this very process is governed by the inner spirit of life called Atman (Soul). Scholars and scientists have across eons of time, tried to extrapolate an answer as to how this process happens, and whether there is any scientific basis to this process. This quest, the acquiescence, and the transmigratory process has been challenging and has not been described in detail. The aim of the article is to review the main Vedic scriptures defining Atman and how it determines the process of cycle of birth and death.

## Methodology:

The main scriptures of Sanatan Dharma were systematically searched, collated, and presented.

## Findings and Conclusions:

Evidence from the various Sanatan Dharma scriptures provide an understanding that Atman, as a spiritual power, determines the cycle of birth and death. Whereas, past karmas proceed through Atman, this eternal power ultimately merges with the supreme divinity (the Super Soul). Anecdotal evidence suggests in favour of this transmigratory process of human life and the eternity of Atman as the quest for perpetuity.

Corresponding author: Dr. Nemai C Karmakar

Email address for the corresponding author: [nemai.karmakar@gmail.com](mailto:nemai.karmakar@gmail.com)

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## Introduction

There are two fundamental principles in *Sanatan Dharma*: transmigration and the Law of Karma (i.e., *Karma yoga*) (Dharma, 1961, BBC 2021). According to *Vedic* scriptures (Pabhupada, 1998; Dutta, 2004), every living being is made of a Soul of an incorporeal spirit and goes through a cycle of birth and death until final liberation. This transmigration is the inevitably outcome of the *Law of Karma* where Karma is defined as a philosophy based on cause-and-effect relationship to life activities (actions and reactions) that ultimately determines the next form of life after death (Berkley Centre, 2021).

The law dictates that after death, everybody takes a new life based on their Karma from their past life, irrespective of their evolutionary history, their family position, worldly status or as a higher or a lower biological life form. The law parallels to the theological stand that people do not abjectly surrender or resort to their fate which is an inscrutable, unpredictable force that may act in life, instead it is Karma that determines the before and afterlife.

However, this raises two important questions: (i) how does karmic responses perpetuate from one life to another? and (ii) is there an end to this cycle of birth and death?

According to *Vedic* scriptures, Karma is carried by the *Atman* (vis-à-vis, Soul), the eternal spirit or consciousness of life that transfers Karma to the next life and beyond (Prabhupada, 1998). In order to learn this very process of transmigration (i.e., from one state of existence to an alternative presence), understanding the nuances and characteristics of *Atman* (henceforth 'Soul'), is of paramount importance. The specific objectives of this article are: (i) to define Soul in terms of karmic reactions, (ii) to explain the process of transformation of life activities to the next life and beyond (transmigration and *Moksha*), and (iii) whether is there an end to the cycle of birth and death, and finally, (iv) to describe the functions of the Soul in light of contemporary scientific discoveries with examples. This review will allow readers to understand the characteristics of the Soul and its migratory process within the unity of science and spirituality.

### Literature Review

Vedic sages and ancient Greek philosophers (including Plato and Aristotle) explain the spirit of the organism as 'Soul or Psych' or consciousness. The characteristics of Soul has been vividly described in several verses of the *Rigveda* (Dutta, 2004; Muller, 1959), one of the original *Vedic* scriptures of *Sanatan Dharma* (henceforth Hinduism). Based on *Vedic* verses different *Upanishads* (the philosophical explanations of Vedas) provided detailed metaphysical understanding of the inner meaning of Soul and its relation to body and mind. Subsequently, *Bhagavad Gita* (BG) (Prabhupada, 1998) succinctly formulates a clear summary of Soul based on Vedas and *Upanishads*. In BG, Lord Krishna first, described the characteristics of Soul, as human self-realization, and the process towards the everlasting bond with God, in relationship with karmic activities. BG further explains, how and why, Soul reincarnates Karma to the next life. Finally, it provides clear guidelines of how to break the cycle of birth and death, in order to achieve the final liberation, to 'go back to Godhead', for eternal peace (called *Moksha*).

### Methodology

A qualitative research design was used for this narrative review. A review of the main archival scriptures of Hinduism including *Vedas*, *Upanishads*, and BG with other minor scriptures such as *Puranas* was undertaken. Literatures were reviewed, and critically analysed related to the objectives, and findings were presented using theoretical and historical citations. Evidence from contemporary scientific literatures was also used as a metaphoric theoretical construct of the objectives.

### Findings

#### Definition of Soul according to *Vedic* literature

In the *Bhagavad Gita* (Prabhupada, 1998), Lord Krishna declared that, 'Our whole body pervades an immortal spirit or soul-the *Atman* (2.16)'; 'I am in the heart of every living creature as the Super-soul' (2.10).

Our Soul is called *Jibatma*, which is a miniscule form of the Super-soul called *ParamAtman* (we call *Bhagwan* or *Brahman*). The term *Atman* is derived from a Sanskrit word meaning 'inner-self'. In *Rigveda*, the Soul has been described as a light energy because it emanates from the superlight energy of Super-soul ('*Barenyang Vargo*' - *Gayatri mantra*: 3.72.10). *Vedic* scriptures teach us that the Soul is the original source of our existence (*ens realissimum*, an entity of highest reality), from which everything evolved with whom it merges permanently.

As *Upanishads* are the philosophical explanation of *Vedas*, four of the main *Upanishads* explains Soul is the inner spirit, and the fundamental source of human existence (Table 1).

Furthermore, BG described characteristics of Soul in the second chapter and adds more in the thirteenth chapter (Table 2). In the fourteenth chapter Lord Krishna described how Soul reacts with Karma, then finally in the fifteenth chapter, He confirmed the declaration that Karma is transferred as if air carries aroma.

According to the *Garuda Purana*, the five aspects of *Karma* (desire, longing, action, debt, and virtue) are transferred to the next life.

Table 1. Citation in various Upanishads about Atman (Soul)

Upanishad	Citation (English variant)	Citation
Brihadaranyaka Upanishad (BU)	'The spirit in which everything exists, is the highest value which is beyond description'	BU: 4.4.5
Kathopanisad (KU)	"The Soul of every human (animal) is one even though the creature is revealed as a variety of external forms"; Soul as spirit-body attached to the gross body is often contaminated with material nature and desires and becomes conditioned.	KU: 2.2.9 KU: 1.3.3-4
Chandogya Upanishad (CU)	'The Soul is a pure truth, a universal spirit - the manifestation of an ocean of creation'	CU: 10.10
Mundaka Upanishad (MU)	'The form of the Soul is sub-atomic, can only be perceived by a perfect intellect. This atomic Soul is located in the heart, floating in the five kinds of air* and spreading its effects on the body of tangible living entity. When the Soul is purified from the five kinds of material air pollution, the true spirit is revealed'	MU: 3.1.9

Table 2. Characteristics of Karma and how Soul carries Karma one life to the next life

Bhagavad Gita Script (English variant)	Citation
'The Soul is 'eternal'	2.17
'limitless'	2.18
'Never die'	2.19
'unborn'	2.20
'When body dies, it adopts a new one'	2.22
'Fire cannot burn or cannot be drenched in water'	2.24
'Invisible, unspoken and inevitable'	2.25
'The Soul is miniscule, and beyond the form of nature. Despite contact with the material body, Soul does nothing, nor involved in, and exists as transcendental form in the body, but the five senses do not know it'	13.32-3
'Material nature consists of three modes – modes of goodness, passion and ignorance. When the living entity comes in contact with nature, it becomes conditioned by these modes of nature'	14.5
'When one dies in the 'mode of goodness' he attains to the pure higher planets of the great sages, when one dies in the 'mode of passion' he takes birth as humans; and when one dies in the 'mode of ignorance', he takes birth in the animal kingdom'	14.14
'The living entity in the material world carries his/her different conceptions of life from one body to another as air carries aromas'	15.8

### How does Soul carry Karma to next life and beyond?

Lord Krishna declaration is clear and decisive, however, the question remains in the human mind as to how the Soul transfers Karma, as one 'reaps with what one sows, to the next life as the BG says, 'Soul does nothing, nor involved in, and exists as 'transcendental form' (BG: 13.32-33).

The subject is spiritual, complex, and somewhat beyond our general comprehension. However, in light of scriptures, let us analyse the issue with modern scientific approach so that we can have a better understanding about it.

### Three-existence and five-existence concept of Karma

According to BG, we exist in three forms: 'gross-body' (composed of five gross elements (*khiti, opp, tej, marut, & boam*), 'subtle-body' (mind), and 'causal-body' (consciousness), the latter is associated with *ParamAtman*, the supreme divinity (Ballantyne, 1898). These three existences have been explained as 'five-cells' (*panch-kosha*) in the *Taittiriya Upanishad* (TU; [https://en.wikipedia.org/wiki/Taittiriya\\_Upanishad](https://en.wikipedia.org/wiki/Taittiriya_Upanishad)) linked to *Yajurveda* (Fig. 1). It explains that our mind differentiates around five levels in reaction to Karma, and finally, reaches to consciousness level (TU: 2.15). First, six senses (vision, hearing, smell, taste, touch, and proprioception (i.e., our perception of our spatial position, e.g., supine, lateral, prone) of a person react in the gross body as '*annamaya kosha*' (elementary cell) then to '*pranomaya kosha*' (power cell). Then it travels in depth to '*manomaya-kosha*' (mind cell) and '*biganmaya kosha*' (intelligent cell) for discretion. Finally, it reaches to Soul called '*anandamaya kosha*' (eternal blissful cell). In this stage, according to the nature of Karma based on three characters (*gunas - sattva, raja, tamah*) the Soul bounds Karma as mentioned in BG that at death of the gross-body, Soul transfers karmic *gunas* from one body to another. This is possible because Soul as spirit-body attached to the gross body is often contaminated with material nature and desires and becomes conditioned (BG: 15.5; KU: 1.3.3-4) (Table 2). This is also reflected in *Mundaka Upanishad* that when the Soul is purified from the five kinds of material air pollution, the true spirit is revealed. This is again confirmed in the BG that Karma is transferred as if the air carries aromas' (BG: 15.8).

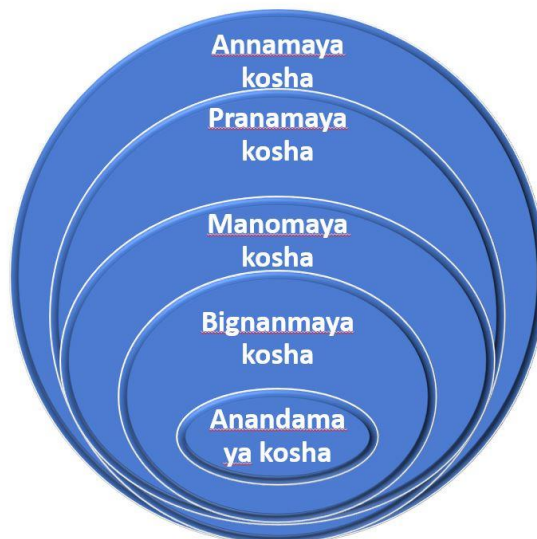


Fig 3. Five-cells: 1. '*Annamaya kosha*' Food cell (inert); 2. *Pranomaya kosha*'- 'power' cell; 3. *Manomaya-kosha*' - 'mind' (*manas*); 4. *Bignanmaya-kosha* -scientific cell knowledge) and 5. *Anandamaya-kosha* - the blissful cell (<https://en.wikipedia.org/wiki/Kosha>)

### Is there a final liberation?

Bhagavad Gita has declared that only human can achieve the 'salvation' (*Moksha: back to Godhead*). It is mentioned earlier that the cycle of birth and death continues without *Moksha* (BG: 2.II), however, there is an end where every life would be subsumed with the Brahman eternally. This is stipulated in the several chapters of BG. First, BG provides an understanding of how to break shackles of this cycle that a few gradually go upwards with 'modes of goodness' through devotional services. However, those who worship demigods remain in the cycle and born again (Table 3).

Table 3. How to break the cycle of birth and death

Bhagavad Gita: Script (English variant)	Citation
'Those situated in the mode of goodness gradually go upward to the higher planets; those in the mode of passion live on the earthly planets; and those in the mode of ignorance go down to the hellish worlds'	15.26
'One who engages in full devotional service, who does not fall down in any circumstance, at once transcends the modes of material nature and thus comes to the level of Brahman'	15.18
'Those who seeking the heavenly planets, they return to this mortal planet again. Thus, through the Vedic principles, they achieve only flickering happiness'	9.20-21
'Those who worship the demigods will take birth among the demigods'	9.25

Table 4. How to elevate and end the cycle

Bhagavad Gita: Script (English variant)	Citation
'One who knows the transcendental nature of My appearance and activities, does not take his birth again in this material world, upon leaving the body but attains My eternal abode'	4.9
'One who executes his duties according to My injunctions and who follows this teaching faithfully, without envy, becomes free from the bondage of fruitive actions'	3.31
who engages in full devotional service, who does not fall down in any circumstance	9.26
'One who surrendering all works unto Me, with mind intent on Me, and without desire for gain and free from egoism and lethargy'	3.30
'By worship of the Lord, anyone can attain perfection'. 'Being purified by his intelligence and controlling the mind with determination, giving up the objects of sense gratification, being freed from attachment and hatred'	18.46, 49, 51-55

Lord Krishna then declares that those who know Lord's transcendental nature, executes duties with devotion and takes part of devotional services, slowly attain perfection, and finally, with full surrender to His Lotus feet attains Moksha (Table 4-5). This is the promise that Lord Krishna proclaimed in the 18<sup>th</sup> chapter (Table 5).

Table 5. Promise that Lord Krishna has made to all

Bhagavad Gita: Script (English variant)	Citation
Those who 'meditate, worship (sharan, bandana, sraban, kirtan and atma-nibedan), and refuge to Him, nobody will fail	18.65
'One who surrendering all works unto Me, with mind intent on Me, and without desire for gain and free from egoism and lethargy', and 'To full surrender to Him'	3.30 18.66

We can understand this very process of transmigration and how to elevate ourselves for achieving Moksha using a scientific example from magnets. We know that the magnetic existence, called a magnetic dipole, remains randomly in an innate iron bar. However, in a hot state, when it comes in contact with a permanent magnet it transforms into a permanent magnet through induction with specific north and south poles aligned. Similarly, as we are *ALL* spiritual beings, our Soul can achieve Moksha through constant practice to be in association with the supreme personality of Godhead as mentioned earlier.

### **Scientific explanation of functions of soul**

Using modern scientific knowledge, we can explain various phenomena of conditioned Soul and unconditioned Super-soul. Using parameters that are measurable and quantifiable, scientists astonishingly help us to understand many unknowns of nature. Analogies, similes, and anecdotes are exceptional tools to understand transcendental activities of the Soul. In the following six examples, the conditioned Soul and its transmigration based on the modern science are explained.

#### ***Soul as an electromagnetic force***

Can Soul work as an electromagnetic force? Scientists found that depending on the situation, human heart produces 1-5 watts of hydraulic electricity. This electricity is needed to transmit signals throughout the body through the nervous system to the brain, which makes our movement, thoughts, and feelings possible. The question is how cells produce and control electrical impulses. The 2021 Noble Laureates Professor David Julius and Ardem Patapoutian of USA have shown this fundamental process of how temperature and mechanical stimuli converted into electrical impulses in our nervous system. Our body has certain charged ions including sodium, potassium, and calcium. Almost all of our cells use these charged ions for electricity production. Does our Soul work as a charged particle through the electromagnetic energy or vice-versa?

*The Three-existence concept and the mobile phone system, a metaphor where the Super Soul represents a mobile communications network*

Another example of Soul as an electromagnetic force is derived from the mobile phone system which may be a metaphor of our three existence - gross body, subtle body (mind) and the casual body (soul) as described earlier (Personal communication: Swami Sunisthananda). The hardware can be considered as the gross body, a SIM card with an individual number and programming as the subtle body while the power of a battery as Soul. If battery, as the causal body (consciousness), is not present, the first two (hardware and SIM) has no value. Once the battery is in, the smartphone is functional and provides services as it was designed for, transfers voices, messages, or photos etc in a specific (encrypted) way. However, if the network is down all three existences is ineffective which may be considered as the Super Soul. Let us first understand how the mobile phone works. The information is carried and transferred by the network's electromagnetic signal as subtle energy from one phone to an intended person's mobile phone only. The process goes through encryption and digitising the analog signal through various modulation techniques, and so on. This process of invisible electromagnetic signal remains beyond our comprehension. The modulated and encrypted signal is like our conditioned Soul as an invisible energy that works subtly but in an inevitable way in which encrypted individualistic karmic activities are transferred from one body to another as if the mobile phone's encrypted messages and voice coded signals go to the intended person only. As mentioned earlier, this is confirmed in the BG as Lord Krishna said that '*the living entity in the material world carries his/her different conceptions of life from one body to another as the air carries aromas*' (BG: 15.8). Therefore, we can draw an inference that our Soul is associated with different characteristics (qualities or gunas) that transmigrate from one body to another as an invisible (electromagnetic) force which remains beyond our comprehension.



### *The Soul works in an invisible way similar to how gravitation works*

We know that the gravitational force attracts matter. Does gravitation stay in the matter, or can we see how it operates? Like Soul, gravity is invisible and performs inevitable functions as a force. According to Newton's first law of force, an object attracts another object. The force is proportional to the product of the masses of two objects, and inversely proportional to the inter-element distance squared. Since earth is a big object, it attracts other objects, but it does not reside in the object that it attracts. Lord Krishna says exactly the same thing in BG, '*as the super soul and ultimate reality, I resides in each living entity, but I am not attached to it*'. This connotation gives the ultimate difference between the *Jibatma* (individual conditioned Soul) and the Super Soul, which is Lord Krishna Himself.

### *Super Soul and the creation of the universe*

How was our universe created? According to the scientific theory (the Big-Bang), a highly condensed infinite energy exploded about 14 billion years ago using four energy sources – gravity, electromagnetic force, weak, and strong nuclear forces. These forces work simultaneously with a perfect proportion for the creation of the universe. According to Stephen Hawking, any difference in the formulation even a millionth of a second, the universe may not exist as we see it in the present form (Hawking, 2011). The question arises whether it is a random occurrence or there is a higher designer behind this. These energies transform to different forms of matters and expanded (Fig. 2). After those billions of years of expansion, the majority remains as the dark energy (70%), some energy transformed into dark matters (25%) while only 5% converted to visible matters (eg. galaxies, solar system, and planets etc.). The next set of question is, what these invisible, unidentified, and uncountable dark matter and dark energies are doing? Similar to invisible dark matter and dark energy, Soul is invisible as a miniscule part of the Super-Soul with profound function which remains beyond our comprehension.

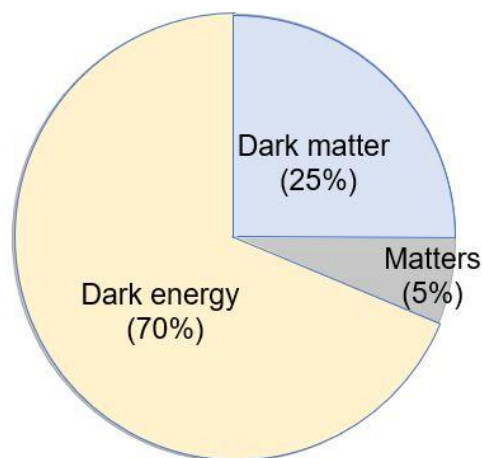


Fig 2. Universe in a nutshell. Our universe is composed of 3 things: (1) Dark energy (yellow) = 70%; (2) Dark matter (blue) = 25%; and (3) Ordinary matter (grey, solid matters, solar system, galaxies etc) only 5%. ([http://www.esa.int/Science\\_Exploration/Space\\_Science/Extreme\\_space/What\\_is\\_the\\_Universe\\_made\\_of](http://www.esa.int/Science_Exploration/Space_Science/Extreme_space/What_is_the_Universe_made_of))

### *Soul transfers Karma unlike DNA (gene) molecules in our cells*

In 1953, Noble Laureate American biologist James Watson and British physicist Francis Crick discovered DNA (deoxyribonucleic acid) molecules in our every cell nucleus that transfers characters from one generation to another (eg. like father like son). The Genome project found that there are about three billion letter combinations of genetic code (ATGC) in every cell that constitute and carry genetic

information (99.5% of DNA) to the next progeny (Adams, 2008). The codes are extremely complex and infinitely encrypted somewhat similar to binary codes (1s & 0s) that used for computer programming. When cells die, the stored information within codes does not lose. Is it mere a random phenomenon? Is there a designer behind this super complex codes? However, how this microscopic entity carries character is somewhat known to scientists. In contrast, Soul is so miniscule and abstract that it is impossible to know how it (as the representative of Super Soul) transfers worldly Karma. However, this puzzle can be eased with the quote of Lord Krishna that transmigration of Soul is like air carrying pollen to specific receptor flower for the next progeny. This filtering characteristics and the order it follows are the law of the universe. Therefore, the above observation of genetic encryption is true not only in biological sphere but also in other sciences (eg. physics, chemistry, and mathematics). The wireless communication via the electromagnetic signal is an appropriate example. Only a specifically polarised signal at a specific frequency can be received by a receiver once that specific signal is transmitted. The universe follows the same principle of filtering.

### *Soul as an eternal energy like ordinary energy*

Renowned scientist, Albert Einstein proposed the Theory of Mass Energy Equivalence:  $E = mc^2$ , where,  $E$  = energy,  $m$  = mass of object, and  $c$  = speed of light. Energy is equal to the mass of the object multiplied by the speed of light squared. At the elementary level, the equation says that the energy is eternal, and energy and mass (matter) are interchangeable. According to scientists, only 5% of the cosmic energy of the universe is solidified and the rest remains as the energy state (dark energy) which is also unknown (Fig. 2).

Similar concept we observe in the *Mundaka Upanishad* and BG that 'the Soul is *Sat-chit-anand* (eternal and blissful)' which is subatomic in form but exists as energy which is eternal. On the other hand, the Super Soul can be considered to be an *infinite electromagnetic force* which is incomprehensible and unimaginable. When the mundane Karma is attached to Soul, as abstract power it becomes conditioned to carry precise information. Just like the modulated electromagnetic signal in our smartphone. However, it is somewhat outside of the understanding of the general mind. Because activities of Soul are unexpressed and unimaginable, but it transfers information inevitably, only sages with enlightened souls can experience the transcendental nature of the creation and Brahman. Likewise, a telecommunication engineer can perceive the transfer of a signal from one device to another as he is the designer of the specific device.

### **Does science acknowledge a Soul?**

In the previous section, we have analysed the conditioned Soul, its transmigration process, and the Super Soul with examples of some modern scientific discoveries. In this section, we examine what the quantum physicists and medical scientists conceive about Soul.

### *Quantum physics and Soul*

One burning question is how physicists understand Soul. Generally, scientists do not acknowledge the existence of Soul because science experiments physical phenomena and draws logical conclusions based on the phenomena. However, over the past few decades 'quantum physics', a new field of science deals with fleeting or unseen objects. The eminent scientist Professor Deepak Chopra defines this branch of science as, 'almost a faith' (Chopra, 2021). He says, 'science works with objective issues, however, in the era of quantum physics, there are invisible and transient events entered into science, so in reality, it almost becomes a faith'.

Quantum physics teaches us that it is a mistake how we see the world in the present form. Instead, the present nature arises from something beyond our ability to comprehend (much like theology). For



example, according to quantum theory, a visible object is in fact, a concatenated sum of rolling invisible electrons, proton, positrons etc. So, neither it is solid as we see it, nor it is static. Generally, it is an unfamiliar concept to the general mind. A similar concept is propounded in the Vedantic philosophy (Upanishads) that the whole universe is illusionary.

In recent years, the field of quantum physics has advanced quite rapidly. Stuart Hameroff, the professor emeritus at the University of Arizona, and Sir Roger Penrose, a mathematical physicist at the University of Oxford, propose that overall brain function derives from quantum level microtubule vibrations. They propose that quantum vibrations in microtubules inside neurons of our brain gives rise to consciousness (Hameroff, 2001) (Fig. 3). This led to a new quantum theory of consciousness called "Orch OR" (Orchestrated Objective Reduction) (Hameroff & Penrose 2014). The theory dictates that microtubules (protein polymers) govern neuronal and synaptic functions and connect brain processes to self-organizing processes at the quantum level (Fig 4). Scientists believe that the Orch OR theory can account for the afterlife. This theory raises the intriguing possibility that Orch OR allows consciousness apart from the brain and body, distributed and entangled in space-time geometry (Hameroff, 2012; Hameroff & Penrose 2014). Thus, they speculate that it is possible that the quantum information can exist outside the body, perhaps indefinitely. The quantum information is, may be created from the very fabric of a supernatural source and may have been present since the genesis of time. They termed this consciousness as the 'quantum soul'. Thus, it is held that our souls are much more than the interaction of neurons in the brain. It turns out that the quantum theory (which will be progressively more explicit) concerning the functioning of the brain, and the '*the concept of Atman*' described in the *Vedic* texts and BG are exactly of same nature.

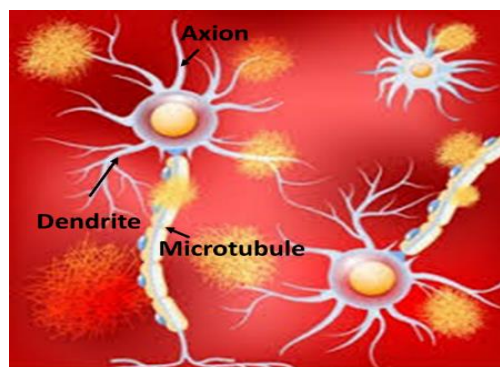


Fig 3. Neuron cell comprised of Axon, and Dendrite that contains Microtubule (highly magnified): Our brain has 86 billion neuron cells, and each contains 10 million microtubules (<https://www.google.com/search?client=firefox-bd&q=how+many+neurons+in+our+brain>)

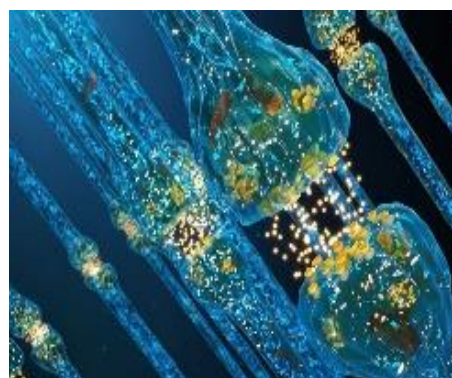


Fig 4. Synaptic activity, basic functions of neuron: How one neuron connects with another through microtubule activity at the quantum level

### Medical science and Soul

The scientific research based on magnetic resonance imaging shows a significant difference between signal from the active and clinically dead brain (Long, 2014). The former shows time varying signal while the latter (dead brain) shows non-time varying signal. Studies from 'clinically dead' (near death experience) people shows that a neuron's microtubule information stays outside the brain for a while.

When clinically dead people become alive again apparently the lost information is restored in the brain. How is this possible? It is possible, which is partly explained by Hameroff and Penrose as the abstract function of 'quantum soul', by the power of consciousness. In fact, it is beyond our science-based knowledge and is slowly evolving.

The next question is after death where is all the lifelong data stored? Quantum scientists speculate that it may return to the universe indicating that it is also beyond the scope of scientific experimentation. However, *Vedic* literatures explain that it is governed by the conditioned spirited Soul based on Karma. The data is stored in Soul that is transferred to another body after death. Finally, at the final stage, the Soul goes back to Godhead from where it once descended.

The third question is what happens to heart or kidney transplant patients, do they accept the conditioned Soul or the personality trait of the donor? While the answer is no, question remains that why not? Although there is no satisfactory answer because of little scientific evidence, the *Vedic* understanding (*Law of Ataman*) is that Soul is specifically designed for the recipient in which during transplant, the power generated heartbeat is linked to Soul that determines all bodily function as it has been. Medical science has also not been able to elicit the 'Lazarus Phenomenon' (Linko, 1983; Bray, 1993) of Cardiac Pulmonary Resuscitation patients who survive or come back to life after many hours or even days after being clinically dead.

## Discussions

The presented review has attempted to address one of the most intriguing questions why and how Soul works as an invisible superpower for transmigratory processes. The answer in the various scriptures and scholarly journals relate to the phenomena of the universe and within the characteristics of the electromagnetic signal or gravitational force or dark energy. Can we see electromagnetic signal or gravitational force or dark energy, or do we know how they function if we are not experts in respective fields? Similarly, Soul functions indispensable and inevitable way as a fundamental eternal energy governed by the Super Soul. Only those sages, who had experienced the Super Soul, explained natures and characteristics of Soul and Super Soul. This is how we know Soul, a powerful spirit that expresses the eternity as the conditioned Soul in individual living beings (linked to Super Soul) that transmigrates Karma from one life to the next. To our understanding, this is the first detailed enumeration of transmigratory process of Soul based on *Vedic* literatures related to scientific knowledge, similes, and metaphors.

In respect of scientific perspectives what we envisage is; first, through extensive research quantum physicists have advocated that our existence is based on miniscule particles (eg, Higgs-boson particle, neutrino etc). The most of them are invisible, has no charge (means no capacity for attractive and repulsive forces like an electric charge or a magnet) with insignificant mass. While there is similar concept in the *Vedic* literature that our life is based on miniscule but powerful Soul, scientists have been denied for long. Only recently quantum physicists have acknowledged Soul, hypothesing that there is a spirit called 'quantum soul' (Hameroff & Penrose 2014). On the other hand, the *string* theorists ([https://en.wikipedia.org/wiki/String\\_theory](https://en.wikipedia.org/wiki/String_theory)- e.g., Professor Kaku) say that it is the string, while the relativists (eg. Einstein) say that it is the eternal energy that brings this universe as we see it. The most tantalising of all is a recent post by one of the most renowned Harvard Astrophysicists, Professor Avi Loeb that this universe has been created in a laboratory by a technologically advanced 'Class A' civilization (Loeb 2021). He questioned about the prior events of the singularity where Big-Bang starts and proposed that aliens created it using a 'Quantum Tunnelling' technology. Is that alien the almighty Brahman?

The fact of the matter is that whatever the definitions scientists have coined, there is something highly subtle, an incomprehensible power that makes matters into existence, and puts everything into order. This is the absolute that it is a single and complete power, it is always universal, and is called the Super Soul – *Brahman*. Soul is the miniscule part of this Super Soul which has incomprehensible power to transform Karma to the next life and beyond.

What we have hypothesised here is: there is a Super Soul who puts all existence into an order and our Soul is the light beams of that almighty force. In our physical life, work generates Karma with a cause-and-effect relationship with Soul and the gross body. We are amazing transcendental being, an intergalactic time traveller as our Soul is ageless and eternal, and we do not know how far behind we had been and how far future we will be travelling. In that sense, we are older than dinosaurs, and older than the cosmos. More importantly, Karma that we generate is time variant, perpetuate through life after life, and thus will be profoundly purposeful. This is echoed by the renowned British physicist, Professor Paul Davies in his famous book, 'The Mind of God', '*The universe is no minor by product of mindless, purposeless forces. We are truly meant to be here. By the means of science, we can truly see into the mind of God*' (Davies, 1993).

Therefore, according to *Vedic* wisdom we can conclude that Soul is the basis of our existence and is eternally connected with all living beings. In light of discussions of metaphoric examples, it appears that as we are becoming technologically advanced, the secrets of life explained in Vedic literatures will slowly be revealed. A similar comment was made by Professor John Lennox, a mathematical physicist of the Oxford University, '*The more we get to know about our universe, the more the hypothesis that there is a creator gains credibility as the best explanation of why we are here*' (Lennox, 2020).

### Limitations

There are few caveats. First, the mantras/hymns from *Vedas*, *Upanishads* and BG were contextually presented without inner meanings and explanations. Secondly, we did not present Sanskrit mantras directly to increase readability, instead only inherent meanings (English variant) are given. Thirdly, we were not able to provide detailed explanation of the scientific theories and discoveries, instead we used these as metaphors or similes for explanatory purposes. Fourthly, scriptures of other faiths (eg. the Bible, the Tora, the Quran) are not used because of lack of knowledge and understanding. Finally, this treatise has been prepared with limited knowledge of the vast treasure of scriptures, therefore any errors in citations and appropriate insights are inadvertent. While we used proper citations of two web-based figures (3 & 4) but failed to find copyright permission, if any.

### Conclusions

From the above brief discussions, we make the following concluding remarks:

1. Soul (also called *jibatma*) is an eternal, invisible and unimaginable power which is the miniature form of *Brahman*.
2. The power of *Brahman* is single and complete, it is always universal, and it will always be infinite.
3. There are three forms of our existence: 'gross body', 'subtle body' (mind) and 'causal body' (Soul). These three existences are explained as five-cells (*kosha*) in the *Upanishads*.
4. The Soul transfers Karma to the next life and beyond based on the three nature (*gunas*: *sattbah*, *raja*, *tamah*) as abstract power like electromagnetic energy of the mobile phone transfers information.
5. Soul expresses the eternity of energy and continuity of divine forces from one generation to the next.
6. Human can attain Moksha through attainment of enlightenment, transcendental knowledge' and full surrender to *Brahman*.

7. As a gross body we are mortal, but as Soul we are ageless and eternal.

Finally, the 'concept of soul' of the *Vedic* literature had a profound effect on ancient ethics and religious traditions. This is the basis of *Sanatan Dharma* popularly known as 'Hindu religion'. Traditionally, this religion believes in transmigration where past activities proceed through the Soul, and ultimately merge with the supreme divinity (Bhagwan/Brahman), from where it once descended. Future research on this complex nature of the Soul is essential for more insights and purity of knowledge.

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