

# Chapter 17

## Subjective Evolution of Consciousness in Modern Science and Vedāntic Philosophy: Particulate Concept to Quantum Mechanics in Modern Science and *Śūnyavāda* to *Acintya-Bhedābheda- Tattva* in Vedānta



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**Abstract** How the universe came to be what it is now is a key philosophical question. The hypothesis that it came from nothing or *śūnya* (as proposed by Stephen Hawking, among others) proves to be dissembling, since the quantum vacuum can hardly be considered a void (*śūnya*). In modern science, it is generally assumed that matter existed before the universe came to be. Modern science hypothesizes that the manifestation of life on earth is nothing but a mere increment in the complexity of matter – and hence is an outcome of evolution of matter (chemical evolution) following the Big Bang. After the manifestation of life, modern science believed that chemical evolution transformed itself into biological evolution, which then had caused the entire biodiversity on our planet. In the framework of materialism, the major attention is to find general organizational laws stimulated by physical sciences, ignoring the uniqueness of life. The main goal of materialism is to reduce consciousness to natural processes, which in turn can be translated into the language of math, physics, and chemistry. Following this approach, scientists have made several attempts to deny the living organism of its veracity as an immortal soul, in favor of genes, molecules, atoms, and so on. However, advancement in various fields of biology has repeatedly given rise to questions against such a denial and has supplied more and more evidence against the completely misleading ideological imposition that living entities are particular states of matter. In the recent past, however, the realization has arisen that cognitive nature of life at all levels has begun presenting significant challenges to the views of materialism in biology and has created a more receptive environment for the soul hypothesis (Shanta BN. *Commun Integr Biol* 8(5):e1085138, 2015). Therefore, instead of adjudicating different aprioristic claims, the development of an authentic theory of origin of life

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and universe needs both proper scientific knowledge and the appropriate tools of philosophical analysis of life. This talk will highlight the uniqueness of biological systems that offers a considerable challenge to the mainstream materialism and proposes the Vedāntic philosophical view as a viable alternative for development of a theory worthy of origin of life and universe.

**Keywords** Consciousness · Reductionism · Organic whole · Determinism · Vedānta · Acintya-bhedābheda-tattva

## 1 Introduction

Reductionism is the dominant approach practiced among the physicalists and is grounded in the belief that all phenomena are based on material processes that are ultimately reducible to the natural laws. Reductionists claim that theories and laws in different fields of science are nothing but special cases of theories and laws formulated in some other, more basic branch of science, in particular of physical science. Adopting this ideology, most biologists are also reductionists and naturally presume that they can explain a biological system in principle as soon as the system is reduced to its smallest components. That is why they are busy in completing the inventory of the components within a biological system and the functions of each one of them. They are under the impression that after accomplishing that task, it would be very easy to explain everything observed at the higher levels of organization. Such approaches have progressed from gross anatomy to microscopy and from organ physiology to cellular physiology. However, all these attempts only establish their inapplicability when it comes to comprehending biological systems using the principles that are basic to the physical sciences [2]. To understand living organisms, one may dissect the body of a living organism into muscles, organs, bones, nerves, molecules, and atoms. The practitioner of that type of analysis may only gain certain useful new information, but those smallest parts will never provide all the answers that are necessary for understanding life as a whole. Even after acquiring a complete catalog of all the molecules of which it is composed, it is not possible to infer structure and function of the biological systems like the cell, liver, heart, lung, brain, and so on.

Leaving aside biological systems, reductionism is even unable to explain the nature and teleological function of artifacts. For example, to understand the nature and function of an earthen pot, reductionists may apply appropriate natural laws and also determine what kind of soil the pot is made from, and then they can study the structure of that soil under the microscope and carry on downward through chemistry to the basic molecules, atoms, and elementary particles of which the soil is composed. Such an approach cannot contribute anything toward understanding the properties of a pot as a pot. A sentient subject may use the same pot for many different purposes, and thus the purpose of the pot has an external teleological dependence (subject is outside the system) on the sentient subject. Different pots

may be made of many different substances like soil, plastic, metals, and so on, and, yet, they can be used for the same function (say, storing water) by the sentient subject. Therefore, a mindless application of reductionism cannot comprehend the external teleological function of the pot, which is dependent on the sentient subject. Similarly, in a sentient living organism, a single chemical structure of a biomolecule can execute many different functions, and also one function can be produced by several different chemical structures [3]. Reductionism can at best hunt for correlations and not causal relationships between a structure and a biological function [4]. In a living cell, molecules like proteins can specifically catalyze a chemical reaction or recognize an antigen not only because their amino acids are arranged in a particular way but also because their three-dimensional structure and function are controlled by the sentient living cell. Without the existence of sentience, as in the case of a dead cell, the same proteins may be present, but they cannot do all those functions that are observed in a sentient cell. The complex functions of the body of a living organism have an internal teleological (subject is inside the system) dependence on the sentient living entity within the body. Being more complex than external teleology, it is impossible for reductionism to grasp the internal teleological functions of different chemical structures present within a sentient living organism.

A recent paper [5] also accepts that, despite a significant progression in reductionism-based cell biology, an elementary rationalization of even the simplest subcellular biological processes is missing. In this article, based on the so-called notion of theories of “active matter,” the authors raised hopes on developing the physical principles of subcellular organization to help establish predictive theories of cell biology. However, the term “active matter” is grossly misleading because matter by its nature is “inactive” and it may apparently be observable as “active” only under the influence of external forces or by the subtle influence of sentient or cognitive principles. Consciousness is a force within the body, and only when it is conscious, an organism will stand up and perform its usual activities. The moment consciousness leaves, the body collapses. Therefore, by using a reductionism-based self-organization theory, biologists can never discover the natural laws that govern the actual cellular microscopic behaviors of the molecular constituents or the interactions between cytoskeleton filaments.

Aristotle’s four aspects of causes [6] will be a good explanation to demolish the great brick wall that we often come up against the attempt to understand living organism from a non-reductionist viewpoint. Let us consider the “brick wall” example (which is an example for external teleology) in the context of Aristotle’s four aspects of causes. If someone asks why a “brick wall” was built, then following a reductionist approach, we can only address the two causes from Aristotle’s four aspects of causes: (1) the material cause – that out of which “brick wall” is made – and (2) the efficient cause, the natural laws that are important in the art of “brick wall” construction. However, the simplistic reductionist approach cannot address another two subtle causes: (1) the formal cause – the form or the shape of the “brick wall” (which was in the mind of the architect) – and (2) the final cause, the end or the purpose (external teleology) for which the “brick wall” was built. This is a major limitation of reductionist approach commonly practiced in physical sciences. It is

important to note that apart from above four aspects of causes that Aristotle described, Vedānta talks about yet another cause: “the original cause” or “cause of all causes.” The verse 5.1 in *Sri Brahma Samhita* explains about this original cause:

*īśvaraḥ paramaḥ kṛṣṇaḥ sac-cid-ānanda-vigrahaḥ  
anādir ādir govindaḥ sarva-kāraṇa-kāraṇam*

**Translation** The personification of spiritual existence, consciousness and ecstasy, Sri Krishna, who is known as Govinda, is the Supreme Lord of all Lords. He has no origin, He is the origin of all and He is the cause of all causes.

## 2 The Linear Logic of Physical Sciences Is Insufficient to Address Organic Whole

The commonly practiced linear causal explanations in physics and chemistry are insufficient to address the network and circular causality of an organic whole. The immensely complex organic whole does not allow reductionism to unravel all the causal relations of a functional dynamic integrated biological phenomenon [7]. Due to a misunderstanding, reductionists falsely believe that causality is a relationship between two chemicals/objects or between a structure and a function. In reality, causality is a relationship between successive events, and reductionism cannot establish a unique causal relationship between the structure and the function of a biomolecule in an organism. Therefore, a thorough knowledge of basic molecules, atoms, and elementary particles cannot explain anything about origin of life, differentiation during ontogeny, subjective experiences, and so on. An apparent proof for the same is that, despite their big claims, the overenthusiastic reductionists could not succeed in developing a purely materialistic (Cartesian) theory of biology.

The term biology is of Greek origin meaning the study of life. On the other hand, chemistry is the science of matter, which deals with matter and its properties, structure, composition, behavior, reactions, interactions, and the changes it undergoes. The theory of abiogenesis maintains that chemistry made a transition to biology in a primordial soup [8]. To keep the naturalistic “inanimate molecules to human life” evolution ideology intact, scientists must assemble billions of links to bridge the gap between the inanimate chemicals that existed in the primordial soup and anatomically modern humans. Even though the proponents of a natural origin of life express much optimism for providing their theories, presently there is a detailed compilation of information seriously questioning this doctrine [9]. This reductionistic ideology has always failed to answer two simple questions: (1) What is the minimum number of parts that are essential for a living organism to survive? (2) By what mechanism do these parts get assembled together?

Whether it is between genes and tissues, cells and other parts of the organism, and organism and its environment (which includes both living organisms and inanimate objects), a highly intricate and inseparable sentient interaction is the hallmark of

biological process at all levels [10]. Due to this specific characteristic of biological systems, we must consider nature, ecosystem, social group, organs of a single organism, and so on, as organic wholes. Reductionists should understand that they have a wrong conviction that the organic wholes are mere mechanical and chemical additive sums of their parts. Unlike, mechanical or chemical systems, the parts in a biological system cannot be separated from the system, without destroying it as a working system. Therefore, they can no longer be called parts but are participants or members of a dynamic organic whole. A complete knowledge of the properties of the participating members can never provide a complete knowledge about the dynamic organic whole. Materialists must realize that, to develop proper explanations of mind and consciousness, biology needs a much more sophisticated philosophical foundation than the rather simplistic conceptual framework of the physical sciences.

### **3 Determinism Is One of the Stumbling Block of Egocentric Approach in Modern Science**

The theories of logical positivists, physicists, and mathematicians are based on natural laws, and therefore, those theories are generally strictly deterministic. Studies in physical sciences adapted this approach throughout the history. French mathematician and physicist Laplace claimed that if we can know at one time the positions and speeds of all the particles in the universe, then we can predict their behavior at any other time, in the past or future. This framework of strict determinism does not allow any independent (of natural laws) subject to intervene and break the natural laws. In other words, everything including the living entities – subjects – is also under the complete dictum of natural laws. This is the position that is adopted by majority of scientific community.

Following Laplace, scientists blindly started presuming that by their research works and models they can predict the future/past. As the scientific research progressed further, in due course, the evidence forced the scientists to accept the fact that their capability to predict the future/past is significantly restricted by the complexity (e.g., chaos theory or butterfly effect) of the equations. In spite of these clear practical difficulties, many scientific studies are still based on the dogma of determinism.

In the nineteenth century, scientists believed that hot body (say a piece of hot iron rod) would lose energy in radio waves, infrared, visible light, ultraviolet, X-rays, and gamma rays, all at the same rate. If that is the case, then it will put all of us at the risk of exposure to the dangerous radiation, and also it will ensure that everything in the universe will maintain the same temperature. However, we all know that it is not the actual situation. German theoretical physicist Max Planck refuted this wrong notion by proposing that the radiation comes out of hot body in quanta (packets) of certain amount. As compared to infrared or visible light, the energy in the quanta is higher

for ultraviolet and X-rays; hence, unless the body is extremely hot like the sun, it cannot emit (due to lack of enough energy) ultraviolet and X-rays. Even though, Planck considered the ideas of quanta as a mere mathematical trick (and did not attach it with any physical reality), scientists in due course claimed that the amount of spin (an intrinsic form of angular momentum) carried by elementary particles have a value multiple of a basic unit (discrete or quantized values). In the early twentieth century, another German theoretical physicist Werner Karl Heisenberg proposed that we cannot measure both the position and the speed of a particle exactly, and thereon a few scientists started to realize the implications of quantum behavior on the dominating notion that we find in modern science: “to proceed with a dogmatic presumption that total understanding is within our grasp.”

Without light, our eyes are helpless to see things, and using this analogy, we can also understand the limitation that Heisenberg’s uncertainty principle highlights. To see where a particle is, we have to shine light on it, and instead of any arbitrary amount, by following Planck’s explanation, we have to use certain quantum of light for this purpose. When we impinge certain quanta of light on the particle, it will disturb the particle and thus change its speed in an unpredictable manner. To measure more accurately the position of particle, we have to use light of shorter wavelength like ultraviolet, X-rays, and gamma rays. However, as we have mentioned above, as compared to visible light, the quanta of these forms of light with shorter wavelength have higher energies, and thus they will cause more disturbance to the speed of particle. Thus, we have to sacrifice more and more the accuracy of measurement of the speed of particle when we try to increase the accuracy of the measurement of the position of particle and vice versa. We all know that the knowledge received by sensual experiences always faces problems when the objects are too small (say, an electron) or too big (say, gigantic planets). Heisenberg’s uncertainty principle certainly undermines the *Laplacian* scientific determinism, which invokes the necessity of knowing the position and speed of the particle simultaneously.

Moreover, the practitioners of quantum mechanics are also unable to overcome completely the notion of determinism. As we have discussed above, according to quantum mechanics, particles do not have well-defined positions and speeds. Thus, following a deterministic view, the practitioners of quantum mechanics use a so-called Schrödinger equation, where the size of the wave function gives the probability that the particle will be found in that position and the rate, at which the wave function varies from point to point, gives the speed of the particle. The deterministic view in quantum mechanics presumes that the wave function contains all the information of the particle, both its position and its speed. Thus, following deterministic framework, scientists use the “wave function at one time” in Schrödinger equation to calculate the “wave function at other times.” Even though quantum mechanics is not exactly the type of determinism that Laplace proposed, it is based on a mechanistic principle and cannot place itself above the notion of determinism (it is still an attempt toward predicting the wave function accurately) that we commonly find in the scientific research.

Interestingly, even though the theory of quantum mechanics is known to the scientist since the last several decades, it is not well conceptualized by many and thus is not applied in many fields of studies in modern science. As a result, many claims in different fields of science are quite contrary to the claims of quantum mechanics. Many scientists (e.g., biologists) have a deep emotional attachment to determinism. They have thus continually claimed that life can be understood by certain precise chemical pathways and intricate mechanical arrangements. However, despite their emotional claims, they have not managed to provide answers to two simple questions: (1) What is the minimum number of parts that are essential for a living organism to survive? (2) By what mechanism do these parts get assembled together? Thus, scientists have not learnt the lesson of their incapability to know things under the deterministic framework. Scientists must understand that reality is not a slave of their preconceived notions and scientific models. The article entitled “Idols of the Mind vs. True Reality” (<http://scienceandscientist.org/Darwin/2015/12/27/idols-of-the-mind-vs-true-reality>) by Sripad Bhakti Madhava Puri Maharaja, Ph.D., scientifically elaborates this most important point.

Many have the presumed notion, especially in the field of biology that matter is a well understood concept. However, to avoid unnecessary confusions, it is important for biologists to deeply understand the concept of matter before they could claim things like “life is a chance combination of matter.” Quantum mechanics is a progress from observer-independent classical physics to an observer-dependent description of reality, where it has shown us that we are not directly dealing with the science of object but we are dealing with the science of knowledge of the object. Hence, physics has realized that matter does not have an independent existence apart from consciousness. This is a direct challenge to the prevailing dogmatic faith on scientific reductionism: every single process in nature can be broken down into its constituent parts and can be described scientifically.

#### 4 Vedāntic View of Life, Its Origin, and Evolution

The ontological view of the organism as a complex machine presumes life as just a chance occurrence, without any inner purpose. This approach in science leaves no room for the subjective aspect of consciousness in its attempt to know the world as the relationships among forces, atoms, and molecules. On the other hand, the Vedāntic view states that the origin of everything material and nonmaterial is sentient and absolute (unconditioned). Thus, sentient life is primitive and reproductive of itself – *omne vivum ex vivo* – life comes from life. This is the scientifically verified law of experience. Life is essentially cognitive and conscious [11]. And, consciousness, which is fundamental, manifests itself in the gradational forms of all sentient and insentient nature. In contrast to the idea of objective evolution of bodies, as envisioned by Darwin and followers, Vedānta advocates the idea of subjective evolution of consciousness as the developing principle of the world.

In Eastern tradition, also we can find many schools of atheistic philosophy, and most famous atheist in Indian philosophy was Carvaka Muni. The philosophy of Carvaka Muni is paralleled by the many Western philosophers, and it clearly reflects in the materialism that is predominantly practiced in modern science. As we have discussed above, the followers of this philosophy believe that consciousness is the by-product of the chemical combinations of different material substances (atoms and molecules), and thus in this concept with the dissolution of this physical body, neither soul nor consciousness remains. Following this line of thinking, many argue that just as the combination of different chemicals produces something more than the individual chemicals themselves, the mechanical and chemical combination/accumulation of different material elements produce consciousness. Thus some of them believe that with the dissolution of this fleshy (gross) body, nothing remains, and Epicurus first advocated this philosophy in the West. In Eastern tradition, the Buddhists believe that when the physical (gross) body is dissolved, the subtle body (the mental system) goes on to take another birth. Buddhists accept transmigration (reincarnation or *metempsychosis*) from one body to the next. According to Buddhists, although the gross body may vanish, the individual living entity must enter another body following the law of karma. Buddhism proposes that if one practices a particular way of living, then he/she can dissolve the subtle body also and thus nothing remains (*śūnya*). Thus, according to Buddhists, there is no eternal soul. According to Vedāntic literature, Lord Buddha taught this philosophy of *śūnyavāda* to stop the animal killing that was practiced at the beginning of present age – *Kali-yuga* by the unqualified persons on the name of sacrifice. The verse 9 of *Śrī Daśāvātāra-stotra* by Srila Jayadeva Goswami explains:

*Nindasi yajña-vidheḥ śruti-jātam  
Sadaya-hṛdaya darśita paśu-ghātam  
keśava dhṛta-buddha-śarīra jaya jagadīśa hare*

**Translation** Oh Keśava! Oh Lord of the universe! Oh Lord Hari, who have assumed the form of Buddha! All glories to You! Oh Buddha of compassionate heart, you decry the slaughtering of poor animals performed according to the rules of Vedic sacrifice.

Śrīpād Ādi Śankarācārya also gave a similar philosophy with a slight difference. Buddhist school claims that there is no eternal individual soul, and Śrīpād Ādi Śankarācārya also said that there is no permanent individual soul. However, the philosophy of Śrīpād Ādi Śankarācārya accepts the existence or conscious substance, Brahman, and for the followers of this philosophy, the Brahman is the ultimate reality. Buddhists believe that ultimately there is nothing (*śūnyavāda*), and the followers of Śrīpād Ādi Śankarācārya believe that ultimately there is an eternal conscious substance and that is Brahman (*Kevala Advaita* or *Māyāvāda*). This is the major difference between Buddhist school and the school of Śrīpād Ādi Śankarācārya. Thus the followers of *Māyāvāda* believe the existence of consciousness; however, for them, the consciousness of separate existence is false. Under this



*Māyāvāda* philosophy, there is no scope for the existence of individual soul, and any notion of individual soul is a mere reflection of the ultimate conscious substance. Śrīpād Ādi Śankarācārya gave the example of reflection of the moon in mirror, and if we remove the mirror, then there is no reflection. Therefore, under this philosophy, different individual souls are mere reflection of common source – Brahman. This school claims that in reality, all individual souls are one and the same with Brahman. They also believe that by certain practice, one can dissolve the metal system, and thus the consciousness of individuality vanishes in Brahman.

Famous Nobel Prize-winning Austrian physicist Erwin Schrödinger also developed his thoughts on the nature of consciousness and self, specifically from Śrīpād Ādi Śankarācārya's perspective of Vedānta. Quoting Vedānta in line with *Kevala Advaita* or *Māyāvāda*, Schrödinger was mainly trying to explain that consciousness is only one, singular, identifiable with its universal source (*Brahman*), and he believed that the perceived spatial and temporal plurality of consciousness is merely an appearance or illusion (*māyā*). However, it is a common misconception that is found among the monists (Śrīpād Ādi Śankarācārya's *Kevala Advaita* or *Māyāvāda* philosophy) in Indian Vedāntic tradition. The verse 2.12 from *Śrīmad Bhagavad-gītā* [12, 13] completely refutes the idea of singularity of consciousness, where Bhagavān Śrī Kṛṣṇa says to Arjuna: “*na tv evāhaṁ jātu nāśaṁ na tvam neme janādhipāḥ na caiva na bhaviṣyāmaḥ sarve vayam ataḥ param* – Never was there a time when you, I or all these kings did not exist, just as we exist in the present, so have we existed in the past, so shall we continue to exist in the future.” Therefore, according to the Vedāntic view, the plurality of individuals is an eternal fact, and it is confirmed in other Vedic sources (Kaṭha Upaniṣad 2.2.13 says: *nityo nityānāṁ cetanaś cetanānām* – We are eternal, we are many, and Supreme Absolute is also eternal, but He is one) and by authentic teachers like Śrīpād Rāmānuja Ācārya and other Vaiṣṇava Ācāryas. NPR also reported in 2010, “there are 10 times more microbial cells on and in our bodies than there are human cells. That means that we're 90 percent microbial and 10 percent human. . .” [14]. Apart from our own individuality, we must also accept the individualities of all those microbes on and in our bodies. We cannot deny the individuality of all those microbes, by stating that their individuality is mere illusion (*māyā*). In the healthy body of a multicellular organism, every individual cell, despite having its own individuality, is meant to work for the welfare of the whole body. Similarly, Vedānta advocates that we are living in an “Organic Whole,” and every individual unit of this whole is meant to dedicate itself for the satisfaction of the center – the *ādi-puruṣa* or primeval personal absolute. In contrast to Darwinism, symbiogenesis proclaims that life did not take over the globe by competition but by cooperation. In the body of an organism, there are different organs like the heart, kidneys, lungs, and so on, which perform different tasks to serve the function of the body as a whole. One organ does not try to become another. In the similar manner, different living entities and also their environment are related to each other like an organic whole. Evidence in symbiotic exchanges confirms that the sphere of life is like a net, with the different species representing the nodes of that net (network). If changes occur in the network as a whole, then the various nodes (species) change accordingly, to maintain the harmony of the network of life. This viewpoint is completely ignored by many modern evolutionists.

Vedāntic literature explains that wherever life is present, the soul (*ātman*) is there within, and following the “laws of karma,” the soul (*ātman*) in the human body may obtain bodies of nonhuman species and vice versa. By advancement, the soul (*ātman*) can obtain the human form, and by degradation, it can also go back to other forms of life. The soul (*ātman*) is endowed with freewill, and by misutilizing freewill, a soul (*ātman*) may do many misdeeds. The acquired reactions from those misdeeds are known as karmic reactions. “Laws of karma” check the freewill of the soul (*ātman*) by providing new bodies and throwing into different suffering conditions. This ancient theory of evolution is based on the subjective evolution of consciousness [15], and the Darwinian objective evolution theory of bodies is a perverted representation of this ancient wisdom. In Darwinism, evolution means transformation of bodies, and in Vedāntic view, evolution means transformation of consciousness. Twenty-first century biology also teaches us that we should not inflict our ideas on nature; let nature reveal herself to us. Life and its evolution cannot be understood by imposing simplistic Darwinian mechanistic reductionism on sentient biological systems. Evidence is forcing biologists to go beyond physics and chemistry to properly comprehend the science of consciousness. Vedānta holds that different forms (species) are original archetypes that accommodate different varieties of consciousness through which the transmigration of the soul (*ātman*) takes place on the basis of the evolution of consciousness. The body is a biological illusion of the consciousness of the soul (*ātman*), and from an amoeba to a human being, all the different varieties of forms are representations of different stages of conditioned consciousness. Following an endless cycle of birth and death (“transmigration of the soul” or *Metempsychosis* in Greek), the soul (*ātman*) keeps on wandering in different grades of conditioned states of consciousness (subjective evolution of consciousness) by obtaining a body suitable to that consciousness until it attains the pure consciousness.

Abiogenesis and the theory of evolution explain that the first life came from the accumulation of inert matter and that biodiversity is a result of random mutation and natural selection. Evolutionary theory and the principles in biology are applied directly to behavior, and they avoid psychological or cognitive level analysis. Both abiogenesis and evolution theory are outcomes of mechanistic or reductionistic thinking and that is why they cannot explain how organisms have cognitive features like thinking, feeling, and willing. These concepts also do not explain how matter developed the two fundamental characteristics that life has (*Naturzweck* and *bildende Kraft*). Therefore, both the origin and evolution of life must be rewritten on the basis of sentience.

## 5 Conclusion

To make any real progress in our understanding of origin and evolution of life, we have to first understand our real self and thus try to overcome the life that we are living in a notion of false self (identifying material body as our true self). In an

ordinary consciousness, we only observe the objects (or matter) that we can experience, and thus we do not try to seriously think about “who is the seer,” “who is the listener,” “who is the knower,” and so on. Therefore, in a material analysis, we simply experience matter and ignore the “self” or the “subject”: “listener,” “knower,” and so on, because we do not experience them. In Vedāntic philosophy, the path of self-realization or spiritual life begins when the subject becomes the object of its own study. As we progress to a higher level in our spiritual journey, we can also experience the self and that is known as self-consciousness or self-realization, which is beyond the material sphere. In such a spiritual plane, both object and subject are spiritual, and the subject-object duality is negated by simultaneous identity and difference between the subject and object. In Vaiṣṇava Vedāntic view of Śrī Caitanya Mahāprabhu, it is known as *acintya bheda-abheda-tattva* – simultaneous difference and non-difference. In material sphere sometimes human being is also conscious of consciousness, and yet he/she is also conscious of matter (nonconscious body or bodily consciousness). Under the guidance of an expert self-realized saint, one can transcend this transient plane of matter (bodily consciousness) and can attain the spiritual plane where everything is made of the same conscious principle. It is known as science of the soul in Vedāntic philosophy. In Western philosophy, Aristotle called it pure form without matter (*noesis noesis*). The cultivation of this science of self is missing in modern objective science, and without including the study of self (scientist) in our scientific studies, we cannot achieve a complete scientific understanding of reality. This fundamental flaw in materialistic science is the reason that we do not have any scientific solution to our understanding of life and its origin.

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