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Science and Scientist

Sadhu Sanga

A FLOATING WORLD OF EXPERIENCE

by

Srila Bhakti Rakshak Sridhar Dev-Goswami Maharaja



Question: In *Bhagavad-gita*, Krishna says *jiva bhuta maha-baho yayedam dharyate jagat:* the spiritual energy is sustaining this material world. How are we to understand this?

Srila Sridhar Maharaja: The misguided souls of this world are from *tatastha-loka*, the marginal plane, and misguided by misconception they have come within this illusory angle of vision. Krishna says that this world is dead matter. The souls

entered here and movement began. They entered into this material conception and began moving it. In that sense, they are sustaining the universe, *yayedam dharyate jagat*. But ultimately everything is sustained by Him. Krishna also says *aham sarvasya prabhavo*, "Everything emanates from Me." And in the *Vedas* it is said, *yato va imani bhutani jayante*, He is the origin of everything in its creation, its maintenance, and its annihilation. But here in this material world the fallen souls, as so many sparks, have entered like glowworms into the dark region showing the darkness surrounding it. The *jiva* souls are like glowworms in the dark night of this material world. Somehow they are carrying on in the darkness. We can barely trace them out as a meager light in the dark. They are almost completely covered by darkness, but still they can be distinguished. Spirit can know itself.

Question: Who did you say was expounding the atheist philosophy in the West?

Srila Sridhar Maharaja: Epicurus is the greatest atheist of the West, as Charvaka Muni is in the East. According to Epicurus, with the dissolution of this physical body, nothing remains. And according to him there is no mental system; the mental system—what we come across in our dreams—does not have any separate existence. But Sankara and Buddha both accept the existence of the mental system within the physical body. Transmigration of the soul is also admitted in their philosophy. But Buddha says that with the dissolution of the mental system—the *suksma sarira*—nothing remains. Sankaracharya, on

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the other hand, says that the consciousness within the mental body is a reflection of Brahman, and Brahman is the ultimate existence. According to him, with the dissolution of the body, nothing remains but Brahman. Sankaracharya says:

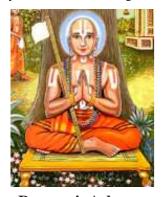
sloka dhenu pravaksyami yad aktam yanti kotibhih brahma satyam, jagan mithya jiva brahmaiva na parah



Sankaracharya

"In half a verse, I am summarizing the truth that has been expressed by volumes and volumes of scripture. Within only half a verse I shall give the essence of all truths: *brahma satyam, jagan mithya*. Brahman, spirit, is true—this world is false. And the *jiva* is

nothing but Brahman. This is the substance of all the scriptures." Proper knowledge is not possible under the philosophical systems of Buddha and Sankaracharya. If what they say is true—the world is false—then we must ask, "Why do you speak? And to whom? If everything is false, is your philosophy also imagination?" We will have to ask Sankaracharya, "Does your coming to this world and your endeavor to refute Buddhism and establish oneness as the ultimate truth have no meaning? Who have you come to preach to? Why have you come to preach if this world has no reality? If this world is false, then why are you taking so much trouble to explain your philosophy? For what? Is your mission also imagination?"



Ramanuja Acharya

The first great opponent of Sankaracharya was Ramanuja. Ramanuja's refutation was very strong and based on a sound foundation. Ramanuja argued: "What is the necessity for Sankaracharya to endeavor with so much energy to establish his philosophy if it is all fictitious? To say, the world is false, is a suicidal position. Has he come here to do

nothing? He has come to correct us and free us from error, but there must be errors. Error or misconception has reality, otherwise, what is the necessity of spending so much energy refuting so many propositions? *Maya* exists. *Maya* is eternal. The individual soul is eternal, and *maya* is also eternal." The basis of material existence is the possibility of the *tatastha jiva* committing a mistake and developing misconception. The soul is *anu cetana*, atomic consciousness. And as atomic units of consciousness, our freedom is not perfect. Our defective freedom is the cause of this illusion. The soul must have freedom. Before a crime is committed, the possibility of committing a crime is present in the ordinary peace-loving subject. The possibility of disease is there, so hospitals, medicine, and special diets are all necessary. In the

Within the world of misconception, maya is the law of the land. The law helps the law-abiding, and the law punishes the law-breaking. The law is the same for everyone; and that same law means protection for the good and suppression for the bad. Law means to divide rights. One and the same law provides for protection of the good and punishment of the bad. The svarupa-sakti, the Lord's internal energy, helps the good, and the maya-sakti punishes the bad. Sakti, or energy, serves the purpose of the Lord, and therefore necessarily has two aspects, paritranaya sadhunam vinasaya ca duskrtam: to chastise the wicked and reward the good. When the Lord Himself appears, His purpose has two aspects: one for the good, another for the bad. He also comes here with that combined purpose. So although He is one, we see these two aspects of His character.

—Srila Bhakti Rakshak Sridhar Dev-Goswami Maharaja

same way, the possibility for misconception is there in the soul because we are weak and limited. *Maya*, the world of measurement, is unnecessary for the Absolute, but necessary for those in the relative position. When there is only one self-interest, *maya* is not necessary. But where there is division, differentiation, and distribution, when there are many ideas of self-interest, *maya* is necessary.

Within the world of misconception, *maya* is the law of the land. The law helps the law-abiding, and the law punishes the lawbreaking. The law is the same for everyone; and that same law means protection for the good and suppression for the bad. Law means to divide rights. One and the same law provides for protection of the good and punishment of the bad. The svarupasakti, the Lord's internal energy, helps the good, and the mayasakti punishes the bad. Sakti, or energy, serves the purpose of the Lord, and therefore necessarily has two aspects, paritranaya sadhunam vinasaya ca duskrtam: to chastise the wicked and reward the good. When the Lord Himself appears, His purpose has two aspects: one for the good, another for the bad. He also comes here with that combined purpose. So although He is one, we see these two aspects of His character. The conception that the unity of the absolute is not a stale, non-differentiated thing is a theory that was propounded by Ramanuja. This is called visistadvaitavada, oneness with difference. The philosophy of Sankaracharya, on the other hand, is known as kevaladvaitavada, exclusive oneness. Ramanuja accepts that the Absolute Truth is one, but according to him, it is a differentiated oneness. He does not accept non-differentiated oneness. That it is one, he has no doubt. But that one is characterized by specification and differentiation. This is similar to the panentheism of Hegel.

THE UNIVERSE IS PURPOSELY DESIGNED

A Discussion between Prof. Michael J. Behe and

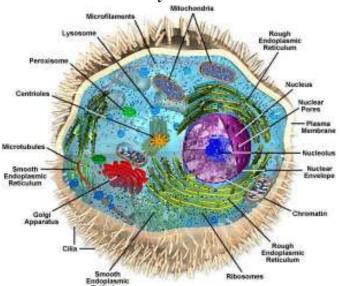
Srila Bhaktisvarupa Damodara Goswami Maharaja (T. D. Singh, Ph.D.)



Dr. T. D. Singh (Henceforth TDS): What you are saying [about fine-tuning] is that an intelligent being is there behind these physical constants. I think fine-tuning could be considered to be a part within the intelligent design scheme. In other words, in the intelligent design

scheme of the creation of an object, every part or organ has to be fine-tuned. For example, the human eye is a product of complete design and it is fine-tuned in the sense that the eyeball, the retina,

Journey Inside the Cell



The human body acts as finely tuned machine, a magnificent metropolis in which, as its inhabitants, each of the 75 trillion cells composed of 10²⁷ atoms, moves in symbiotic precision. Going inside the body and then inside the cell is a journey to wonderland. If we could walk inside a cell, our first task would be to keep from getting bowled over. We would be faced with a myriad of microsized vessels moving in all directions. (Please note that in the above diagram, only representative organelles are shown. In an actual cell, most of these components are present in the thousands, filling the interior space with activity.) It has been estimated that there may be as many as some 200 trillion molecules in a single cell, all executing thousands of coordinated reactions with precise timing and function. To get a scale for the rate of activity, consider: on average, each cell in our body forms 2000 proteins every second and in every cell. [1] We are so embedded in the biosphere that the marvel of its organization has become lost within its commonness.

the transmission of the signal to the optical lobe of the brain—all have to be exactly the way they are made. Even the design of the whole human body with its seventy-five trillion cells, working in a fine-tuned and symbiotic manner, is a startling example. [2] The working of each cell with its marvelous membrane structure, continuous protein formation, production of energy rich ATP molecules, etc., is amazingly fine-tuned.

Prof. Michael J. Behe (Henceforth MJB): Yes, I think fine-tuning is a part of the intelligent design, but not all of it. And there is more to it. One has to be careful to say that, depending on how you mean it, just because some things are intelligently designed doesn't mean that everything might have been intelligently designed. Getting back to the lawn mower analogy, you know the lawn mower might have been designed, the wires and so on, but there might be a smudge of oil on it or gasoline spilled down the side of it. The lawn mower blade might over time get twisted a



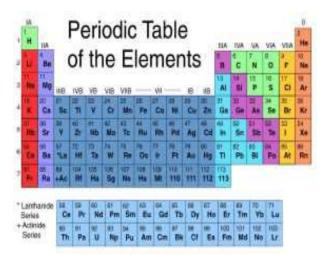
. . . fine-tuning is necessary for design, but it is not sufficient.

—Prof. Michael J. Behe

little bit. But you don't have to say that the little twist or the smudge is part of the design. You know, accidents might happen. So everything doesn't necessarily have to have been designed. With Mount Rushmore, the faces of the American presidents might be designed, but the rubble down the side doesn't have to be. Nobody intended it to fall exactly this way instead of some other way. So you are right that fine-tuning is necessary for design, but it is not sufficient. It is not sufficient to explain the design that we see in the universe. Even though, in my opinion, design extends through physics, through astronomy, through chemistry and into biology, that doesn't mean that everything in biology might have been designed. For example, sickle cell disease (SCD), or viruses or things like that. Maybe they were designed, but maybe not. I think you have to make a separate argument for each case.

TDS: You are making a distinction that there is room for accidents and accidents are not part of intelligent design. I can agree with that. In the Vedantic tradition and also in other traditions—we say that there is a material world and spiritual world. These accidents can happen only in the material world, not in the spiritual world. Accidents are caused by material forces of nature. Earthquake proof design is nowadays added to the building designs in earthquake prone areas.

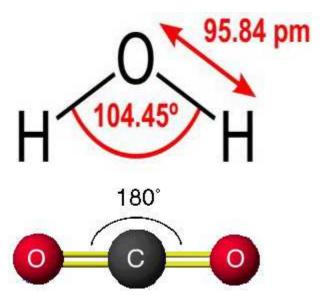
In a meeting I attended the day before yesterday there was one chemist who was from the University of Wisconsin. He was



Periodic Table of the Elements—A beautiful sequence of elements where one finds elements in increasing atomic numbers horizontally and sharing common physical and chemical characteristics vertically.

making a presentation about fine-tuning from a chemistry point of view. He gave two examples. One was the water molecule, and the other was the carbon dioxide (CO_2) molecule. The angle of H_2O is 104.5 degrees and for CO_2 it is 180 degrees (see the figure below). He said that these angles are fine-tuned. [3] Similarly, he said that the entire Mendeleev's periodic table of elements in chemistry is also an example of fine-tuning (see the figure above).

MJB: Yes. Have you read the work of Michael Denton, from New Zealand?

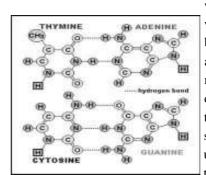


Fine-tuned angles of H_2O and CO_2 . The unique angles of these molecules are central to their structural versatility. The shape and structure of a molecule is an important determinant of its function. For details please refer to [3].

TDS: I have not read much, but have heard about him.

MJB: He has written a couple of books. His most recent book is *Nature's Destiny*. [4] In it he makes arguments like the ones

you've been mentioning. He takes fine-tuning well beyond just the laws of nature, yet still within the realm of physics and chemistry. He applies the arguments of fine-tuning to the properties of water, which have been much talked about—the ability of water to form ice, which is less dense than in liquid form. The strength of covalent bonds, the strength of hydrogen bonds, the particular properties of carbon, these things have all been talked about. Similarly, the properties of molybdenum are necessary for nitrogenous enzymes to reduce gaseous diatomic nitrogen and fix it in the biosphere to be used by living cells. Apparently, molybdenum is the only element that can fit the bill. There are many examples like that. And so, I appreciate the understanding of chemical fine-tuning. Take, for example, the DNA molecule. Nobody has ever been able to come up with other nucleotides



which could do the same work as DNA—hydrogen bonding between hydrogen atoms, and with oxygen and nitrogen atoms leading to different base pairs having the same geometry and size so that they could lead to an undistorted double helix. So there is a whole wealth of

... I think, the more we know, the more we discover, and the more we think about it, we will see that more and more details of the physical world of chemistry and biology are fine-tuned, and some actually are purposely designed.

-Prof. Michael J. Behe

details like that. Again, I think the fine-tuning argument started, in at least the modem era, with the basic physical laws. For example, Brandon Carter's anthropic principle, and so on. But, I think, the more we know, the more we discover, and the more we think about it, we will see that more and more details of the physical world of chemistry and biology are fine-tuned, and some actually are purposely designed.

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- 2. Ibid., p. 49.
- 3. For details about unique and remarkable properties of water and carbon dioxide, please refer to: Denton, M. (1998). *Nature's Destiny: How the Laws of Biology Reveal Purpose in the Universe*, Free Press, pp. 22—46 and pp.131—137.
- 4. Denton, M. (1998). *Nature's Destiny: How the Laws of Biology Reveal Purpose in the Universe*, Free Press.

^{*} The text, illustrations and captions excerpted from God, Intelligent Design and Fine-Tuning—A dialogue between T. D. Singh and Michael J. Behe, Published by Bhaktivedanta Institute, Kolkata, First Printing: 2005—modified for this publication.

SUMMARY OF THE FIRST TWO CHAPTERS OF HEGEL'S PHENOMENOLOGY OF SPIRIT

by <u>Sripad Bha</u>kti Madhava Puri Maharaja, Ph.D.



Sense-certainty is the consciousness that Truth (what is/being) lies in particular external objects. For example, considering that the mountain is true, the tree is true, and so on. But truth is not immediate. Truth is necessarily mediated, i.e. a result, implying that it is *arrived at*.

Thus, if a crime is claimed against someone before a judge, the judge does not accept it immediately as true. The truth of the claim has to be established, arrived at, through due process of presenting evidence, circumstances and arguments. The naïve realist accepts the evidence of his/her senses as true, as does the empirical scientist, but is unaware of the fact that there is process involved in making that determination.

Thoughtful analysis of the role that consciousness plays in such determination, however, leads to the conclusion that the universal representation that belongs to consciousness is the truth or being of sense-certainty and not the particular. This is called perception or perceptual consciousness. Thus whilst the particular object is maintained as object of consciousness, its essential truth is considered to be the universal that belongs to consciousness (i.e., what is mine or in me).

This situation in which the essence (truth) of an object is a universal, is that of an object perceived in the form of its universal properties, or an object that manifests itself as its properties. Thus, for example, sugar is perceived as white, crystalline, sweet, etc. Its properties are all universals, because white refers universally to many things, crystalline can refer to many different objects other than sugar, etc. Yet these properties are held to belong to one particular thing that, yet, it cannot be identified as sugar without those universal properties. Therefore, they are essential to its truth as being sugar.

The very idea of properties implies that they are the properties of something, so the object is implicitly preserved in the idea of "properties." The idea of properties implies plurality or manifoldness, and since many-ness implies difference, the properties are determinate. As determinate the properties negate or exclude each other, and each is therefore a One.

The properties as One's also exclude the object *of* which they are the properties, and likewise the object as a One excludes its properties. An object that is a One with properties is called a Thing.

To reiterate the previous conclusion, the particular object, apprehended as a One, is nonetheless essentially universal for perceptual consciousness. In spite of this, consciousness takes the object to be the essential truth and, in order to preserve that truth, considers its apprehension (the *consciousness* of the object) to be false or unessential. But perceptual consciousness knows only the various properties, and not the object itself.

The properties, as various or different from one another, are themselves sensuous universals, i.e. have being or truth in themselves. Therefore consciousness now takes what is object to it (the sensuous universals) as having sensuous being and thereby ceases to be perception and is led back to sense-certainty. This, however, is sense-certainty that is *arrived* at, unlike the immediacy of sense-certainty we started with. It is a *return* to sense-certainty, and, as such, mediation is implied.

A *return* to sense-certainty means that the object that is apprehended, necessarily includes an intermediating stage, thus the Truth of the object in its immediacy is now altered by this implicit mediation. This intermediate is consciousness' knowledge of its own responsibility for what it is perceiving as an object. This will ultimately lead to the understanding of the object in its purity.

Consciousness oscillates between considering the Oneness of the Thing as due to itself, with the Manyness of the properties attributed to its object, or the Manyness of the properties as due to itself and the Oneness arising from the object. The Thing is then considered as having two distinct aspects: (1) the way the thing exhibits or manifests itself *to consciousness*, and (2) the way the thing is *in itself*—reflected out of the way it presents itself to consciousness. This presents the appearance of having two things: (1) the object in and for itself—having its own existence, and (2) the object as it is for consciousness.

What is *for itself* implies that it is *not* for another. What is *for* another implies *not* being for itself. Yet, how can one object have these two contradictory aspects?

To be *for itself* implies relation, and relation implies mediation or negation. Thus *for itself* is the negation of itself as immediacy or

the supersession of its immediacy. To be *for another* likewise implies the supersession of the immediacy of a thing. Therefore for—itself is essentially the same as for-another—the two can coexist without contradiction since they are identical in essence, i.e. essentially a (synthetic) unity. In this way the Thing in-and-for-itself, as having its own being, is overcome just as the immediacy of being in sense-certainty was previously overcome.

The immediacy of being in sense-certainty was overcome by universality (perception) yet this universality was afflicted by sensuousness, viz. the object was still there as *object* while its being or truth was taken up (superseded) by consciousness. Likewise the Thing is simultaneously a One (particular) as well as a manifold of properties or "free matters" (universal)—thus it is a distinct, specific Thing and is also that which is determined only in relation to other Things.

All these aspects when taken together express the full essential nature of the Thing (universal), whilst the Thing in itself still remains as an existence for another (particular). It is only when the being-for-itself of the Thing is understood as identical to its being for another that the sensuous otherness is overcome and one reaches the original synthetic unity of the Concept (G. Begriff) which contains all the different yet inseparable moments of essentiality, unessentiality, particularity, universality, distinction, and relatedness.

In other words, the Thing is simply of the nature of the Understanding that constitutes it, and in which all the conflicting moments are unified. This is the Unconditioned, because the Thing as a sensuous other, or thing-in-itself, is overcome by the recognition of the identity of being-for-itself and being-for-another, i.e. both are the same mediated immediacies.

Common sense or consciousness as perception thinks it is dealing with substantial things that have their own being, when in fact thought, or the activity of consciousness, is at work and present in each and every moment. Without recognizing this presence of thought in its experiences, consciousness becomes dominated by that which is abstracted from itself, as having a being on its own, and does not realize that the things which appear to be outside and beyond itself are its own essence, intimately integrated with it.



Immanuel Kant

It is in this way that perceptual consciousness fails to arrive at the Truth of Things (since it does not acknowledge the constitutive role of consciousness) and is rather left to reveal its own untruth (since it thereby deals

only with abstractions). This may also be considered a reference to Kant's philosophy that Hegel criticized as being only at the level of perceptual consciousness.



G. W. F. Hegel

The consciousness of Understanding deals with the aspects or "in-so-faras" perspective of things. It does not deal with things in their contradictory wholeness. Rational consciousness, however, "knows" that it is dealing with wholes that are only abstractly divided for the sake Understanding. It is the task of Reason to determine how to deal with wholes as wholes. Most importantly, the comprehension of the whole, even when that is attained, puts the

comprehending consciousness outside the whole that it is comprehending. This is therefore not the whole as it is in-andfor-itself. The whole must include the consciousness comprehending it as well as everything else, and it must have its own being beyond any finite conception of it, and, in fact, produce the finite conception of itself. It is perhaps one of the most significant achievements of Hegelian philosophy to be able to reach this goal—Reality in-and-for-itself and not only for consciousness. Another is that Hegel is able to expound a scientific system that deals with a substantial Reality that is essentially Subject, i.e. a Truth that is rationally conscious of itself—God. And finally, within his system he is able to deal with all the problems of philosophy in a consistently methodical way that proves to be both necessary and complete. All of this is the product and development of Reason, which is the integrating and differentiating substance of Reality that is essentially Subject—or we can say the Reason of God.

Divine Reason acts within all of creation, in which Man participates to some finite degree and, accordingly, is able to articulate that in the world. It is not so clear-cut as this, however, as the understanding would like it to be. The principle of the identity of identity and difference blurs the distinctions between God and Man so that, although the distinction is there, identity is also to be accounted for. It is this principle of simultaneous oneness and difference beyond understanding, and comprehensible only to what Hegel calls Speculative Reason that unlocks the door to the sphere of Spirit, or Absolute Knowledge. This is of course the broader perspective—the real science is in the details. Study of the *Phenomenology* is useful because it deals with the perspective of Reality from within consciousness and gradually leads to the comprehension of the *Concept* of which consciousness is only one aspect.

Subjective Evolution of Consciousness

EVOLUTION is generally thought of as something merely objective. But objective evolution is a misperception of reality. Evolution is actually beyond on consciousness, which is subjective. Subjective evolution, however, seems to be objective evolution to those who are ignorant of this perspective.

Consciousness seems to be the UNESSENTIAL embedded in a concrete substance, but actually it is just the opposite. Consciousness is the substantial and its objective content or world a florating on it connected by a shadowy medium like MIND.

This view finds surprising support in advanced modern science from which physicists like Paul Davies have concluded that it is necessary to adopt "a new way of thinking that is in closer accord with MYSTICSM than MATERIALISM."

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With an irresistible passion for TRUTH, the author takes us to an incomparable synthesis of thought from Descartes, Berkeley and Hegel in the West to Buddha, Shankara, and Sri Chaitanya in the East to reveal the internal correction of reality in all its comprehensive BEAUTH and FULFILMENT.

Subjective Evolution of Consciousness
The Play of the Sweet Absolute

Swami B.R. Sridhar

Evolution is generally thought of as something merely objective. But objective evolution is a misperception of reality. Evolution is actually based on consciousness, which is subjective. Subjective evolution, however, seems to be objective evolution to those who are ignorant of this perspective.

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To obtain the book Subjective Evolution of Consciousness please contact us at: editors@scienceandscientist.org