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All Branches of the Same Tree of Knowledge

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DARING TO DEFY DARWIN

Bhakti Madhava Puri Ph.D.

Dr. James M. Tour is a synthetic organic chemist, specializing in nanotechnology, Professor of Chemistry, Professor of Mechanical Engineering and Materials Science,



Dr. James M. Tour

and Professor of Computer Science at Rice University, Houston, Texas, USA. In 2005, Tour's journal article, *Directional Control in Thermally Driven Single Molecule Nanocars*, [1] was ranked the Most Accessed Journal Article by the American Chemical Society. In 2009, Tour was ranked one of the top 10 chemists in the world over the past decade. With hundreds of publications, and over 60 patents, and more than 3000 citations a year, he is one of the most respected scientists in the US.

In *Science News* [2] he says: "I will tell you as a scientist and a synthetic chemist: if anybody should be able to understand evolution, it is me, because I make molecules for a living, and . . . I mean, *ab initio* . . . I make molecules. I understand how hard it is to make molecules."

He goes on to say, "I don't understand evolution, and I will confess that to you. Is that OK, for me to say, I don't understand this? Is that all right?" In this sincere manner he continues:

Let me tell you what goes on in the back rooms of science - with National Academy members, with Nobel Prize winners. I have sat with them, and when I get them alone, not in public - because it's a scary thing, if you say what I just said - I say, "Do you understand all of this, where all of this came from, and how this happens?" Every time that I have sat with people who are synthetic chemists, who understand this, they go "Uh-uh. Nope." These people are just so far off, on how to believe this stuff came together. I've sat with National Academy members, with Nobel Prize winners. Sometimes I will say, "Do you understand this?" And if they're afraid to say "Yes," they say nothing. They just stare at me, because they can't sincerely do it.

About eight years ago he openly challenged those scientists who said they understood evolution, to come forward and explain it to him:

I will buy lunch for anyone that will sit with me and explain to me evolution, and I won't argue with you until I don't understand something – I will ask you to clarify. But for me . . . you've got to get down in the details of where molecules are built. Nobody has come forward. The Atheist Society contacted me. They said that they will buy the lunch, and they challenged the Atheist Society, "Go down to Houston and have lunch with this guy, and talk to him." Nobody has come!

He is willing to admit that he can understand microevolution,

But when you have speciation changes, when you have organs changing, when you have to have concerted lines of evolution, all happening in the same place and time – not just one line – concerted lines, all at the same place, all in the same environment . . . this is very hard to fathom.

He concludes by quoting one bio-engineer who admitted it is all just belief: “. . .you know, we all believe in evolution, but we have no idea how it happened.”

Professor of Philosophy of Science, John Dupré, at Exeter University, UK, has written about the 21st century crisis in evolutionary theory, especially as regards the neo-Darwinian synthesis of Darwin's original theory with genetics. He writes [3]:



Prof. John Dupré

Recent developments in molecular biology have put the final nail in the coffin of traditional genetic determinism. For example, epigenetics - the study of heritable modifications of the genome that do not involve alterations to the genetic code - is on the rise. And the many kinds of small RNA molecules are increasingly recognized as forming a regulatory layer above the genome.

Beyond undermining the gene-centered theories of evolution that have dominated public consciousness for several decades, these developments call for new philosophical frameworks. Traditional reductionist views of science, with their focus on "bottom-up"

mechanisms, do not suffice in the quest to understand top-down and circular causality and a world of nested processes.

This last statement, in fact, is the view that our Institute has been consistently advocating through our publications.

Dr. Stuart A. Newman, is Professor of Cell Biology and Anatomy at New York Medical College in Valhalla, NY, USA. He has expressed his disagreement with the genetic determinism of the neo-Darwinian theory of evolution, stressing that there must be a role for morphological patterns in the formation of body plans of different phyla.



Dr. Stuart A. Newman

The popular idea is that genes are compared to a kitchen recipe from which elaborates the “pie” with the appropriate environmental constraints, but Newman argues that research instead demonstrates that [4],

the composition of the cell's interior and the activity of many of its proteins depend on more than just the genes. The portion of the genes' information content that is actually used by the cell is determined, in part, by non-genetic factors. So . . . the genes do not uniquely determine what is in the cell, but what is in the cell determines how the genes get used. Only if the "pie" were to rise up, take hold of the recipe book and rewrite the instructions for its own production, would this popular analogy for the role of genes be pertinent.

Dr. Didier Raoult is Director of the Research Unit in Infectious and Tropical Emergent Diseases, collaborating with CNRS (National Center for the Scientific Research), IRD (Research for the Development Institute), and the University of the Méditerranée in Marseille, France. He is classified among the top ten researchers in



Dr. Didier Raoult

France, with over a thousand publications, and almost 50 active research workers producing about 200 papers each year.

This highly productive scientist has published a book in 2011 entitled *Beyond Darwin*. [5] In an article published online at *Project Syndicate* [6], he writes that Darwin upheld:

the idea that organisms evolved from a single root – a position held by Adam and Eve in the creationist worldview, and taken over in the modern era by the Last Universal Common Ancestor (LUCA). And from that remnant of the Biblical story of creation sprung the notion of a tree of life, alongside major concepts such as gradualism (the view that speciation does not occur abruptly) and the idea that minor selection pressures can, over time, have a profound effect on improved fitness.

But Raoult claims that 21st century genetic research unequivocally refutes this worldview. Since no two genes can have the same evolutionary history, the idea of a "tree of life" would be inconsistent with such a framework.

"Indeed, we now know that the proportion of genetic sequences on earth that belongs to visible organisms is negligible. Furthermore, only 15% of the genetic sequences found in the samples from the environment and from feces analyzed in metagenomic studies belong to the three domains of microbes currently recognized in the tree-of-life framework – bacteria, archaea, and eukaryotes. Viruses contain another 15-30% of these genetic sequences."

This means that the majority of unidentified genetic sequences pose an unresolved problem. Where do they come from? New genes suddenly appear, called ORFans ("orphan genes") without any precursors. They may be produced by gene duplication, or fusion, or some other unknown process. Yet, Darwin's tree of life concept would make it impossible to consider such processes.

The transfer of genetic sequences from parasites to hosts could involve hundreds of genes for

bacteria or viruses. But, as Raoult writes, "the current classification of the domains of life is based on the ribosome – the production apparatus of proteins – which does not exist in these viruses."

Adherence to the dogmatism of Darwin thus prevents these new discoveries, that overturn his century-and-a-half old teachings, from ever reaching the new generation of scientists. Raoult concludes,

Genetic research, in particular, must be free to find new models to explain, and enhance, twenty-first-century scientific discovery. Today, Darwin's theory of evolution is more a hindrance than a help, because it has become a quasi-theological creed that is preventing the benefits of improved research from being fully realized.

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Report on the International Conference 'Science and Scientist - 2013'

Bhakti Vijnana Muni, Ph.D. and Bhakti Niskama Shanta, Ph.D.

1.0 Theme of the Conference

The Bhakti Vedanta Institute of Spiritual Culture and Science, Princeton, NJ, USA, Sri Chaitanya Saraswat Institute, Siliguri, W.B., India and Synergy Institute of Technology, Bhubaneswar, Odisha, India organized an international conference entitled 'Science and Scientist 2013' at Synergy Institute of Technology – Bhubaneswar campus on the auspicious 76th appearance day of Srila Bhaktisvarupa Damodara Goswami Maharaja (Dr. T.D. Singh, Founding Director of Bhaktivedanta Institute) on 8th Dec, 2013. Main theme of the conference was 'The Scientist can explain science.



'Can Science explain the Scientist?' Conference Chairman Sripad Bhakti Madhava Puri Maharaja, Ph.D. (Serving Director of Bhakti Vedanta Institute) explained the conference theme:

Science is the body of Man's knowledge and understanding of the natural and social world derived by following a systematic methodology based on evidence. As a body of knowledge, it exists, but not as a mechanical body that can be analyzed in terms of physics and chemistry. Rather, physics and chemistry are subsets of Scientific knowledge that are products of Science. In turn, Science is the product of the rational activity of Scientists. It is the peculiar perversion of modern materialistic science to think they can invert this natural sequence...

... enthusiasm to explain biological life in terms of physics and chemistry has led mechanistic science to a threshold, beyond which it has not been able to cross. The phenomenon of life has proven itself to be inaccessible to mere physical and chemical scientific explanation, despite the most strenuous efforts of thousands of scientists worldwide.

Life comes from life is a scientific conclusion based on evidence. Matter or biomass is also a product of life only. Neither of these principles can be explained or produced from mere matter only. Authentic science must be based on these real principles of Nature that are confirmed by repeatable evidence, and not based merely on prevailing ideological dogma. It is our hope that this conference, and many more like it, will help to bring about the inevitable progress towards a scientific understanding that is worthy of the concept of life.

Srila A.C. Bhaktivedanta Swami Prabhupada was a great ambassador of the religious tradition of Lord Sri Chaitanya Mahaprabhu. He gave a message to the scientists all over the world in the form of two perfect axiomatic truths of Vedanta – (1) Life comes from Life, and (2) Matter comes from Life. Following Srila Prabhupada, Srila Bhaktisvarupa Damodara Maharaja and Sripad Bhakti Madhava Puri Maharaja have been instrumental in bringing a revolution in the hearts of scientists with these two empirically confirmed axiomatic principles.

2.0 Pre-conference Meeting with Scientists

With a journalistic approach we tried to meet leading scientists in the states of West Bengal and Orissa for introducing the conference theme and its importance in 21st century science. We went to many premier institutions like the Calcutta University,

Jadavpur University, Bose Institute – Kolkata, Saha Institute – Kolkata, IIT – Kharagpur, IICB – Kolkata, IOP – Bhubaneswar, North Bengal University, RRL – Bhubaneswar, and so on. We were often confronted with diametrically opposing views, some understanding that living phenomena are not solely explicable within the province of physics or chemistry and others taking an extreme materialistic stance.



Dr. B. Vijnana Muni Maharaja

Our Visit to Bose Institute, Kolkata

Prof. Samir K. Pal from Bose Institute, Kolkata explained that advances in Femtography have provided insights and measurements that lead us to think beyond the limits of Physics and Chemistry. He said he had worked with Prof. Ahmad Zewail, Nobel Laureate and agreed that biological functions are a well-orchestrated cognitive activity. When we see things very grossly we may conclude that biology is just physics and chemistry, but on applying more precise methods like Femtography we begin to get a very different picture that brings us nearer to the philosophical aspects of Reality.

Our Visit to Institute of Physics, Bhubaneswar

Prof. A.M. Srivastava, the Director of Institute of Physics, Bhubaneswar was very much appalled that we were two PhDs from IITs, but were pushing a dialogue for harmony of science and religion. He opined that life had to be a purely scientific problem. When he was asked whether all the equations were written in the sky or in the mind of the scientists, he protested that everything is a result of physics and chemistry and demanded to know what were our credentials in modern science. We replied to him that we were PhDs and that the advances of modern physics after the work of Heisenberg, Schrödinger and others have blurred the boundary of what we call scientific, from being purely objective to a subject/object dialectical unity. Finally when we

asked him whether science was subjective or objective, he replied hesitatingly that surely we could have a discussion on that over a cup of coffee.

Our Visit to IIT – Kharagpur

We had many interesting dialogues with several IIT – Kharagpur faculty members. Prof. Animesh Mukherjee from Computer Science Dept. discussed at length the problem of origin of languages. How do we get from no language to a language? How does the hierarchy of languages arise and what is a communicative advantage? He agreed that presently there was no concept within pure objective science which covers all aspects of language's origin and development. He agreed to our suggestion that semiotics is a useful approach in such problems which pertain to living systems. Our suggestion from the Vedantic angle of vision is to consider an irreducible subject/object, and mind/body unity for a deeper understanding. Prof. C.S. Kumar from Mechanical Engineering argued that cognition and understanding are only neural/computational phenomena and there was no need to bring in the spiritual paradigm. From Searle and Penrose, we explained to him that there is no understanding involved in any computer machine. The active principle of any computer is the programmer and information in a code is coming from the programmer and is not a result of some unknown random process. We also explained that every organism has its own purpose within the system (internal teleology) but in the case of a machine a designer decides the purpose (external teleology). Prof. Som from the Mechanical Engineering Department agreed with our argument that the laws of physics, when combined with certain initial conditions, don't explain living function, e.g. movement of an ant over a graph sheet. Prof. V.S.N. Murty, a retired faculty explained that life can be sustained only by life. The food that we consume is actually alive and in a deeper sense Nature is alive. We could not have

been alive if nature was not alive. He referred to a book authored by Sullivan named, *Limitations of Science* [1] that gave him direction in such thinking. Prof. Adinpunya Mitra from Agriculture Department discussed that the phenomenon of pollination defies all mechanical logic. Plants are not some passive organisms living at the mercy of wild Nature. Plants actively participate, proliferate, and identify their own species as well as competitors. Another faculty from Biotechnology Department asked us what do we mean by cognitive. Our reply was that all living beings are sentient, which means they have knowledge (purposeful and meaningful existence). There is no physical theory that is congruent with sensory phenomena in living organisms leading to experience (hard problem of consciousness). Secondly, all living organisms are individuals and statistical models in the generalized theories of modern science simply overlook it. Thirdly they produce individuals of the same species and it is the conservation principle of the species. Darwin gave a poor-fitting model of the history of living organisms because he talked about divergence, whereas conservation is the very essence of the bodily forms, and stasis in the fossil record confirms the same.



Dr. B. Niskama Shanta Maharaja

Prof. Shirshendu De, Professor in Chemical Engineering was agreeable to try to see the limits of chance combination in an Eigen-like proposal to study the question of life. We also discussed if it is possible that randomness could ever give rise to new information leading to cognitive reality. He explained it is certainly an important topic for mankind. Prof. Satsangi, Professor in Ocean Engineering asked a number of very intelligent questions based upon the inadequacy of chemical

concept of life. Prof. N.R. Mandal, Dean of Student Affairs said that the ancient message is necessary as science does not answer these questions. The discussion with Prof. Krishna Kumar and Prof. Somnath Bharadwaj from Physics Dept. was that equations of physics predict absolute chaos in the universe. Planets are rushing at gigantic speeds and are a many-body problem. But the observed universe follows a regular course in nature. They said that generally in physics we can only discuss narrow n-dimensional problems. This means we miss the holistic view.

The HOD of the department of Chemistry was very cordial with us. However, Prof. Tanmaya Pathak from same department working in chemistry of DNA and RNA was argumentative about his chemical position. We explained that life is beyond the domain of physics and chemistry: *"With all their science, all the scientists in the world working together cannot make a single blade of grass."* Listening to this he was very much upset with us and there was a good debate on this. We cited the scientific evidence and despite its validity, he told us that he has strong faith in his field of research — life is mere chemistry of atoms and molecules. With this experience we could feel that the material concept of life in modern science is based on faith and not on any real scientific evidence. Prof. Suhita Chopra Chatterjee from Humanities Department said we must include spiritual concepts in our education. She recalled that she had invited Srila Bhaktisvarupa Damodara Maharaja as the chief guest in the conference "Aging and Dying" held at IIT KGP in 2005. Prof. Subhasish Dey, the HOD of civil engineering and Assist. Prof. Hanmaiahgar P. Reddy from the same department were very much convinced about geological conclusions from sedimentation experiments of Guy Berthault and Pierre Julien at Colorado University. Their experiments have shown that Nicolas Steno's uniformitarian assumption of sedimen-

tary rock layer formation was incorrect. These have grave implications for the Darwinian paradigm as they debunk the chronology of Geological-Column commonly used in dating the fossils.

Our Visit to IICB - Kolkata, Saha Institute, Kolkata and CRRI-Cuttack

Dr. Chitra Dutta of IICB, Kolkata said mitochondrial RNA and the DNA in chromosomes often give different results making dating of species difficult. Dr. Krishnananda Chattopadhyaya was happy that educated persons were approaching biology from a spiritual angle. Prof. Rahul Banerjee, of Saha Institute was very interested in the spiritual idea in biological problems. He referred to a paper which critiques the concept of mutations in biology as a random event. Prof. Trilochan Mohapatra, the Director of CRRI-Cuttack was quite dogmatic that life could be explained on the basis of chemical concepts. But Prof. Anand Prakash was more sympathetic to the *Upanishadic* cause and he said he agrees with the idea of soul as the rational basis of biological organisms. A section of scientists are behaving as if the goal of science is to defend materialism, but in reality the real goal of science is to search for the truth wherever it may lead us. Our message to all the scientists we have visited is that we should be guided by evidence and not by our preconceptions. If science is proving to be spiritual, then that is the way to proceed, and in that way come out of our vexed philosophical stance in approaching study of life and matter.

3.0 Science and Scientist 2013 - Inaugural Session



Dr. A. K. Mohapatra, Director AIIMS, Bhubaneswar

Dr. A.K. Mohapatra, Director AIIMS - Bhubaneswar was chief guest of Science and Scientist 2013. First, the delegates on the dais garlanded a portrait of Srila Bhaktisvarupa Damodara Maharaja, Ph.D. and Sripad Bhakti Madhava Puri Maharaja, Ph.D. They lit the lamp for auspiciousness and released the conference souvenir. Dr. A.K. Mohapatra said this universe of wonderful things was created when none of us were here. He asked where the unicellular organism came from, and why did the dinosaur appear and disappear. In science many things will come and go, but the life science of divinity remains. A true scientist believes in God, which is spoken of by saints and sages. Every conference leads to the creation of another booklet like this which is supposed to enlighten the delegates and human beings who are not fortunate enough to attend a conference like this. Doctors treat but God cures by his mercy. Atman or soul is immortal but body is not. He explained that a cow gives milk to the calf due to affection. How can mere physical concepts like positive and negative pressures explain it? Srila Bhakti Prapanna Tirtha Maharaja from Sri Chaitanya Saraswat Math said science without religion has no value. India is the home of the Lord. Without religion, man is an animal.

All knowledge is coming from the Lord. *aham sarvasya prabhava mattah sarvam pravartate iti mattva bhajante maam budha bhaava samanvitaah.* Lord says, "I am everywhere, and by knowing that an intelligent person or a *pandit* worships Me"



Srila B. Prapanna Tirtha Maharaja

Dr. Kapileshwar Mishra, Principal, Synergy Institute of Technology said when science will be able to explore mind as fully as it has attempted to explore space, matter, time and energy there will be a new worldview. Spiritual truth should be very scientific. The Darwinian model does not explain mind. He also explained his good fortune

to have had some interaction with Srila Bhaktisvarupa Damodara Maharaja. Sripad Bhakti Niskama Shanta Maharaja, Ph.D. read out the message of the Chairman of the conference Sripad Bhakti Madhava Puri Maharaja, Ph.D. He also explained the theme of the conference emphasizes that the scientists are producing all the science. Newton's laws, Boyle's law, Charles' Law are all products of thinking of scientists. Yet we do not study the scientist or the thinking being. This conference is unique as it is meant to initiate this education. Science without the knowledge of the scientist is incomplete. If life was simply a chance combination of chemicals, why do we care so much about one another? Modern biology is emphasizing that the smallest cells like bacteria are also sentient entities. Life requires cognition at all levels. He also introduced the most important service – carried out by Srila Bhaktisvarupa Damodara Maharaja and Sripad Bhakti Madhava Puri Maharaja – to remove the misconceptions in modern science that conceive life as a mere combination of atoms and molecules.

Padmashri Gopal Chandra Mitra explained that science has so far failed to create life. Science is dependent on something that already exists in nature. He explained that Darwin said some things that are not true. Professor D.P. Mishra from IIT Kanpur said by science people in general mean systematic knowledge by which we can know the truth, which remains as it is in spite of time and space. That truth is professed by our ancestors. Modern science could only focus on physical aspects and manifestations of physical laws. But we need a soulful science that will make people realize the potential lying hidden in the mind. Life is meant to realize the potential that is above the animalistic necessities. He called upon the younger generation to look upon the reality and go deeper.

4.0 Session I: Scientific Critique of Science

This session was meant for a wholly internal critique of science by scientists according to strict scientific principles. It aligns scientific pursuits with the more human, spiritual and moral dimen-

sions of Man. It utilizes access to a more expanded base of modern experimental evidence that challenges the boundaries of dogmatic 20th century science and supports a wider range of conceptual possibilities by opening wider vistas for expanding scientific study and research that are now restricted by old-school thought.

Dr H. P. Reddy explained the experiments of Guy Berthault and Pierre Julien done at Colorado University. He explained that the chronology of sedimentary rocks is dependent on paleo-hydraulic parameters and not merely on vertical succession as commonly assumed in geochronology. These revolutionary sedimentation experiments challenge geochronology and therefore the foundation of evolution theory which is based on fossil records. Dr. Kamalesh Kumar Mishra explained that science had tried to explain that the universe evolved by self-organization of matter towards more and more complex structures. But life is neither the structure nor the reproduction, not even metabolism. These are only the expressions or manifestations of life. Scientific research on origin of life must include the way of internal energy or *Prana* as depicted in *Upanishad*. This question is intimately associated with origin where Charles Darwin contributed little, and which he consciously avoided discussing in his book. Dr. Amarnath Gupta (Faculty in Physics Department from IIT-Kharagpur) highlighted the protein folding problems. He explained that data on dementias or cognitive functioning in humans is extremely scarce especially in third world countries. Dr. S.C. Das explained that the broad difference between man and machine is consciousness and self-realization. Can a machine get satisfaction



Prof. Anshu Arora

for its performance? When science is refined by intellectual, social and spiritual progress, it will bring the satisfaction which all men seek. Prof. Anshu Arora said we need communicators from science in media as it has a big role in shaping thoughts in society. We know that a lot of scien-

tific content has a spiritual basis. We must translate this to the broad society so that spiritual knowledge will have a scientific basis. Even Gandhi said that in India religion is the one thing through which we can reach out to the people. However, scientists are mostly concerned with journals, articles and reports and they make very little effort to reach out to the society. That is why any bridge is not happening between science, society and religion. Science also can be a profound source of spirituality. The universe exists in different layers from superficial to profound. Reality is macroscopic to microscopic. It is diversified complexity as well as a fundamentally unified simplicity. Princeton University has carried out some research on consciousness and there is a wide-scale discussion on near-death experiences, where science is not really able to answer all questions. Dr. Gregg Braden also has talked about how our emotions affect our health and how by controlling our mind we can cure many diseases. A.K. Patra (research scholar, Civil Engineering, IIT-Kgp) said Darwinism has influenced our view towards materialism. Yet the universal mysteries remind us to be more humble and respectful towards Nature and Reality.

5.0 Session 2: The Science of Spiritual Biology



Binod Dash, Chairman, Synergy Institute of Technology

Sripad Bhakti Madhava Puri Maharaja, Ph.D. gave the introductory message that living systems are cognitive systems, and living as a process is a process of cognition. Knowledge of the internal workings of the cell was almost completely lacking for Darwin, thus for him the cell was basically a “black box.” Michael Behe showed the “irreducibly complex” structures within living organisms, such as the bacterial flagellum. Today, the multidisciplinary field of Cognitive Biology has become an estab-

lished scientific discipline. Everything within the cell interacts with everything else. The constituents of a cell are produced by the cell as much as they produce the cell itself. As the German philosopher Immanuel Kant understood, the unique judgment that allows us to identify a living organism as distinct from non-living matter is that a living organism is both the cause and effect of itself. This leads to the concept of an integrated organic whole which will form the foundation of Spiritual Biology. An oversimplified understanding of living organisms in terms of discrete interacting molecules does not have any actual explanatory significance.

Sripad Bhakti Vijnana Muni Maharaja, Ph.D. said cells were not like pre-programmed machines, but were knowledge-seeking entities. A cell utilizes its sentience in all functions including monitoring its genomics. Mutations are not random events but are now being seen as self-directed action of the cells. Cells have natural intelligence. We can infer that a cell is meaningful and purposeful in its semantic and syntactic functions. Eugene Marais showed that cognitive function in termite colonies work as long as there is life in the queen ant and is not blocked even by steel walls, which obviously would impede any chemical exchange. Further, matter also comes from life. Experiments in nutrition report a discrepancy in the energy balance in biological organisms. From the angle of spiritual biology it means that life violates the law of conservation of mass and energy [2].

P. Karthigayan said actions of the body are invisibly motivated by the soul and mere understanding of the body is inadequate to understand its complicated nature fully. Prof. Abhimanyu Mohanta explained that neither DNA or RNA or PNA is life because they are matter and without consciousness. Vedanta tells us that life is a part and parcel of God – the Supreme Soul and equipped with consciousness. Rajeev Kumar (research scholar, Humanities Dept., IIT-Kgp) stressed the need for a biopsychosocial-spiritual model for living function and behavior. Rahul Jain explained that only when one disciplines oneself to attain a perfect harmonious

state with the Supreme Being does one understand the ontology of Life, Universe and the purpose of one's own existence. Shubra De (research scholar, Civil Engineering, IIT-Kgp) made an attempt to draw a similitude in the outlook towards soul from science, scientists, philosophers and religion.

Father Lameshwar gave a Christian view of evolution. God has created our mankind. In answering a question that Darwin's idea was against the Bible's concept of Genesis, he explained that the Christian view is in line with possibilities, but God is involved with everything. Dr. Bhakti Niskama Shanta Maharaja asked an interesting question to Father Lameshwar: "Some say in modern Christianity, lower animals do not have soul. But Twenty-first century biology confirms that even unicellular organisms like bacteria are also conscious and it is in line with the Vedantic explanation of life. What is your view on this?" In reply he said the human being is the highest creation of God, but the lesser creatures also have soul and consciousness. But the human consciousness is higher and goes to God because he is made in the image of God.

6.0 Conclusion

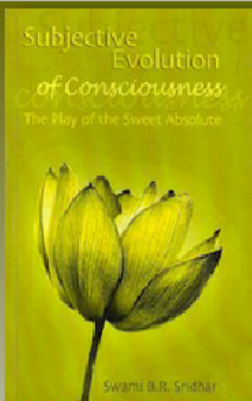
This conference highlighted the inability of objective science to deduce the subject or the scientist. 21st century science boldly acknowledges this problem and is not afraid of a scientific critique of science from within itself. The evidence from 21st century biological research is discovering biology to be more spiritual, Aristotelian and Vedantic. Darwinism has been reduced to a dogmatic faith. Today life is evidenced by realization of the concept of a web of life where all life is mutually



co-dependent and co-producing. *Science and Scientist* is an annual conference whose effort is always to engage the leading scientists of the world on a common, respectful and yet scientifically sound platform to provide biological scientific thinking a way forward from the intractable problems arising from its 20th century roots. Finally we express our heartfelt gratitude to each and every one by whose help, contribution and prayers this effort was made a humble success. We hope to continue this program every year and pray that the message of our spiritual teachers will reach the scientific community to help them see and understand the rational spiritual order of reality and thereby guide mankind to real happiness which must be the goal of every sincere living being.

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Subjective Evolution of Consciousness

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. 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 is floating 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 mysticism than materialism."

To obtain a copy of the book *Subjective Evolution of Consciousness* please contact us at:

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