SCIENCE, SENSE AND SPIRITUALITY
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ABSTRACT
The scientific contributions all over the world till date reflect the amalgamation of inherent research aptitudes, religious bindings and background social structure of scientists / researchers working in respective areas. Why a religion or social structure would not sensitize and sway the senses of scientific research workers there upon telling greatly on the outcome at their behest through philosophical ideologies in theoretical or experimental constructions of scientific ladder? The DNA / RNA have mutastic nature right from viruses to humans, viroids to banyan trees, bacteria to elephants, yeast to orchards. That is where-in nucleic acid lies a click and key for life’s real hidden potencies for manifestations as human, virus, viroid, banyan, orchards, elephant etc. These are speaking enough evidences which show the fingers of climate, nature, social structure or religion (in case of humans) or habitats (microbes) puppeting the diverse influence on all such manifestations related to life. Virus has a peculiar generation flow, the viral soul (DNA or RNA) makes entry into cell of the host, while the capsoid (body) lies outside. The nucleic acid (godly form) demonstrates its manifestations in each and every particle. It is a live demonstration of foreign soul entering into the host body likened to the available examples in religious scriptures about soul of humans entering into another human body. What, how and which circumstances of social structure gravitate humans to endure particular discovery in Science? Whether these influences would engineer a sensible philosophy in scientists? Would it bear some religious significance in the human skeletal features? These are the very points to pause and ponder.

INTRODUCTION
What has been stated by George Bernard Shaw about science becomes relevant to quote here. “Science is always wrong. It never solves a problem without raising ten more problems. Copernicus proved that Ptolemy was wrong”, Kepler proved that Copernicus was wrong, Galileo proved that Aristotle was wrong. Science began after religion occupied the space in human skeleton pitched by cellular tissues. Religion made a man first spiritually excited who later manifested as scientists, poets, seers, economists, industrialists, rulers etc. There has been a considerable debate on the issue of relation and co-existence of science and religion since long but more recently it gained momentum amongst top scientists, theologians and philosophers after publication of a controversial (?) editorial by John Maddox in Nature (London) (362,380; 1993) an international weekly Journal of Science. The roots of this bickering (chiding) editorial lay in the announcement by the University of Cambridge for the establishment of a lectureship in Theology and Natural Science, thanks to £ 1 million donation from best selling author Susan Howatch. Hence, the strabridge lectureship, welcomed by the University for coming “at a time when the interactions between science and theology can offer much in the search for greater understanding of our current existence.” Howatch maintains “science and theology are no longer seen as opposed but complementary, two aspects of one truth”. John Maddox contradicts this statement saying “that can be true only in the most superficial sense, that in which some people see one truth and not the other, or vice-versa. For the many people who take the scientific and the theological (or at least the religious) view together, it is more common to reconcile the inevitable intellectual conflict on matters such as the after-life by supposing that these are two truths, not two aspects of one truth, or otherwise to suppose that Bible stories or the equivalents in other religions have an allegorical function of great moral value to believers”. There is of course a rich view of research on the psychology of religious belief, but that is not what Howatch and University have in mind. Is it not Churlish to chide the efforts of Ms Howatch for sincere endowment to establish an unusual relationship between science and religious studies? A good beginning indeed.

SC Francis (Nature, 361, 292; 1993) is weary about the Lewis Wolpert (Nature 360, 204; 1993) saying that Wolpert seems so profoundly to misunderstand Popper’s philosophy. Popper’s does not maintain, as Wolpert claims “.................. only falsification is important ...........” In the procession of science. Karl popper proposed that falsifiability is the criterion for the demarcation between science and non science. However, a nonscientific or metaphysical theory can prove very influential in the procession of science, for example, Popper’s theory of falsifiability. The fact that Popper’s theory is metaphysical seems to be the root of Wolpert’s misunderstanding. A metaphysical theory can, it is true, be meaningful and useful, but if there is no means of testing its truth there can be no empirical support for that truth: that is why it is nonscientific or metaphysical by Popper’s criterion. That is why Wolpert intends to point out that Popper’s theory is nonsense, thus seemingly he holds the misconception of falsifiability not as the demarcation between science and non science but between sense and non sense. That is how a sense could be perceived amongst scientists to differ with non sense (or better to say non science). Therefore, subsequently, Robert R. Cohen, a renowned physiologist at Medical centre in view of success of the Karl Popper accepted Popper as a moralist who prescribes the proper most productive behaviour of scientist, the path he would have us follow.

SCIENCE AND INTUITION
Intuitions have laid the scientists to win the big accolades in the world. Intuition is the nucleus of obser-
vations one makes. The intuition is driven by the senses one develops through religion or spirituality. Triggering phenomena of intuition are aroused by the spiritual experiences in life which are certainly governed by moralities. The moralities are inculcated through background (religious). John Polkinghorne (Nature 360, 378 : 1992) chides Lewis Wolpert for remarking, in The Unnatural Nature of Science, that scientific knowledge provides our best way of understanding the world.” Polkinghorne beautifully writes that a painting is more than a collection of specks of paint”, implying that science cannot account for the impact of a great painting on the viewer, nor can it, nor has anybody claimed that can. Perhaps it will never will, we can not know.

Wolpert’s problem is that he does not pay any attention to the source of person’s intuition of the value of human individuals. Some of us have that intuition, some of us do not. Nevertheless, intuition may be little fallible and when it has to be compared with scientific approach it has shown to be glittering image with a measured success. Scientists have intuitions about science, others have intuitions about the existence of God. The question Polkinghorne poses- how morality originates- is not, as he suggests, necessarily unanswerable by scientists: sociobiologists have already taken a rather crude crack at it. Intuitions can drive the scientists, philosophers / artists to the new paradigmatic heights, if they are conceived through spiritual senses.

RELIGION IN THE GENES

Brian, D. Josephson (Nature 362, 383; 1993) discarding opinion of stuart Sutherland (Nature, 361, 392; 1993), believes that religion can only gain from being investigated scientifically. Josephson interestingly goes too far to correlate Christianity with most of the scientific investigations made in the world so far. In the process he underestimates the analysis of P. Dawkins (New Satesman and Society 233 (55), 42-5 18 Dec., 1992) in relation to scientific studies should, in the first instance, take account of the fact that central theme of religion (excluding pathological variants which are exceptions) is an attempt to maximize human sense goodness. Josephson speculates that involving genes linked to the potential for goodness, societies in which this potential is actualized in a sizeable proportion of its members will tend to function more harmoniously and more efficiently, so that natural selection will tend to favour the presence in human societies of genes of this type. Likewise the malignancy in human life also has genes coded for this and people attract like minded people forming cohesive groups through genetic expression phenotypically.

Religious culture revolve around the discovery that there are certain subtle kinds of experience that tend to foster the infold of the potential for sense of goodness, and this constitutes the principal factor differentiating religion from humanism.

Different religious cultures use different experi-

ences, and different ideas, in pursuit of their common ends. Some take, for example, divinity as a central theme (experimentally as well as intellectually) while others (Buddhisms for example) focus instead on sense such as compassion and wisdom, and on seeing reality clearly. Hinduism vedanta proffers the sense of spirituality and to attain emancipation from the cycles of life. It emphasises more upon self realization. Science pulls senses towards worldly matters and spirituality triggers the senses to the divinity – the absolute. We should appreciate nature’s syntax as well as its grammar.

John Evans (Nature 362, 689; 1993) as an agnostic acknowledges with accolades the great contributions to science of Christian thinkers such as Newton, Pascal, Faraday, Maxwell etc. who brought such a lively imagination to the physical sciences, and who taught us how to investigate and rationalize the occult forces of nature, were all in their own way devout religious men, who had possessed greatly evolved spiritual powers that sparked such intuitions.

Our moderns, such as Richard Dawkins and John Maddox, not only oppose the religious view on principle, but do their best to deride and censor any secular studies that may have remote religious overtones. They say that put the money into genetics, into drugs, into transplants, into suppression of the immune system, into transplants, HIV, Give it to the Gallos of this world. Whether we can survive much more of this experimentation there is a good reason to doubt.

BIOLOGY OF GOD

David Alt Taylor (Nature 362, 689 : 1993) is also very critical of John Maddox condemning the Howatch’s contribution for mixing natural science with theology at Cambridge University. Taylor, who as a Professor of Chemistry and at the same time a member of Anglican Church, was able to reconcile with both the professions to his own satisfaction. Interestingly, what right has anyone to assume that, because they can not imagine any way in which science and religion can co-exist, God can not do so?

The existence of God is a question that has been answered in several ways by religious philosophers and by scientists. Science has its base in natural philosophy. The scope of science by virtue of its method of study, is limited to the ‘sensible’ universe. Theology, on the other hand allows for a God or gods whose being partly or wholly, lies outside the scope of the sensible universe (for example by virtue of being its creator). Given to this postulate, it is entirely reasonable to bring to bear philosophical reasoning that is not bound by the constraints of science. The question springs up as what have the teachings of God(s) as recounted in religious scriptures have to do with complexities and intricacies of molecular biology? There is of course, a close relationship between religion and morality, and ethics, but there can not any connection at all between theology and natural science per se says Taylor.
In this context, it can be safely philosophised that what microbial cultures in a test tube are for a biologist, all the living creatures in the nature’s bowl are cultural colonies for almighty. God created this world with a harmonious blend of spiritual and earthly characteristics. Said Einstein if there were no existed God, we should invent Him. Stephen Anvin, a theoretical physicist, in his recent book: “The probability of God: A simple calculation that proves the ultimate truth” explains that God created the world in a very regular way according to certain laws. It therefore, seems equally reasonable to suppose that there are also laws governing the initial state. Believers feel that this universe is based on forces of hundred tender balances, which amply demonstrates the very existence of God – the super power. Predictably, one basic sense is that the Universe can not exist without His will. One foremost and powerful example is that electro- magnetic force (emf) is 1039 times greater than the gravitational force (gf). Had emf differed a little with gf, say had it been 033 times (less by 6) rather than 1039, all the stars then would have been collapsed at the beginning itself. God, as a great scientist, first established several required exact balances between two to stabilise the Universe in the present form.

Biologically, God exists in all the living forms as DNA and its power to replicate. Virus to elephant and viroids to banyan tree it is He (DNA) who exists in living beings all through. Hindu philosophy derived from vedanta scriptures exults that God is omnipresent. Biologists speak high of DNA and genes. It is a great philosophy of Vedanta which expounds the spirituality and senses as the basics of human life, which are not the characteristics of any other life form on the earth. The heart of living beings is HE ART in divine senses. Science is naked without religious temperament or spiritual experiences which ultimately triggers intuitions in the hearts for making enormous inventions as did Newton or CV Raman. While scientific temperament is necessary, spiritual development is an all important facet of life on earth for all humans. Science is blind without religion and similarly religion is lame without science. Both these have to be complementary and not the two extreme ends. It is perhaps a singular thought based on the experiences of one particular religion (Christianity which Josephson refers in his epithet) and propounded by Arno Arrak (Nature 364, 272, 1993) that the sine qua non of any religion is the existence of supernatural forces. The vedantas espouse in the scriptures about the secrets of spiritual powers, which can create wonders once these are realized in toto.

The magnificent epic compilation Gita, Lord Krishna’s song, is one of the world’s greatest literary works. The felicity of its verses, composed in the anustubh metre, is more than matched by the philosophical profundity. “In comparison, our modern world and its literature seems puny and trivial,” wrote Henry David Thoreau. Emerson’s reaction to the Gita was equally effusive. “It was as if an empire spoke to us, nothing small or unworthy, but large, serene, consistent, the voice of an old intelligence which in another age and climate had pondered and thus disposed of the same questions which exercise us”. Science all is in Gita, it is total, it is literature absolute and it is the beginning and the end of less. Along with bhakti yoga as a means of liberation, the Gita espouses the doctrine of nishkamya karma Yoga or pure action untainted by hankering after the fruits resulting from that action. Modern scientists have now understood the intuitive wisdom of that action in a new light. Scientists at the US National Institute of Mental Health in Bethesda, found that laboratory monkeys that started out as procrastinators, became efficient workers after they received brain injections that suppressed a gene linked to their ability to anticipate a reward.

The monkeys, which had been taught a computer game that rewarded them with drops of water and juice, lost their lazy ways and worked faster while making fewer errors. The researchers used a new technique to temporarily block a gene, known as D2, that normally produces receptors for the brain chemical dopamine – a crucial component in the pathway involved in the perception of pleasure and satisfaction.

The scientists reported that the work ethic of rhesus macaques wasn’t all that different from that of many people: “If the reward is not immediate, you procrastinate”, Dr Richmond told. The task involved a computer game in which monkey, perched in a plexi-glass cage in front of a computer screen, had to release a lever each time a red dot on the screen turned green. Only quick responses counted. The number of successes needed for a reward varied between one, two or three. A grey bar on the monitor indicated to the seven monkeys in the experiment the ‘rate’ of their progress: it brightened increasingly as a drink became due.

Before their genetic treatment, the monkeys in the test loitered when the grey bar was dim. Only when it glowed did they become hard working. All that changed after a snippet of DNA known as an “anti-sense expression vector” was injected into a part of the monkey brain known as the rhinal cortex. The vector suppressed the expression of the D2 gene for several weeks, docking the ability of the rhinal cortex to detect dopamine. The monkeys no longer understood the meaning of the grey bars. As a result, their interest never waned. They worked their levers like obsessed gamblers.

The significance of the experiment does not point towards an immediate chemical fix for inattentive students and loafing workers. Instead, it hints at a greater understanding of the physical mechanism of the networks involved in reward and addiction. In stark contrast, what makes the doctrine of nishkamya karma all the more remarkable is the fact that it was divined intuitively by the ancient sages of India and which, in turn, led to a powerful method of modulating aberrant or addictive behaviour at a purely cognitive level. That moved a modern sage like Aldous Huxley to exclaim: “The Gita is one of the clearest and most comprehensive summaries of the pe-
rennial philosophy ever to have been done. Hence its endur-
ing value, not only for Indians, but also for all man-
kind". Einstein always admired Gita as a greatest inspir-
ing scripture.

Nevertheless, it is not easy to overcome the at-
traction to the worldly material. In fact, every individual has hundred of bonds that impede his spiritual progress. The first requirement is to come to terms with the fact of one’s state of bondage, as the majority of people are un-
aware of it. Individual efforts are necessary in the form of spiritual practices and this will invoke the intercession of divine grace, which will enable the person to develop mental poise to progress spiritually. It is thus possible to lead an active and blissful scientific as well as worldly life.

ENERGY AND SOUL

Energy can neither be created nor be destroyed, it is a proven scientific fact. The energy changes the form from physical to chemical to photon to kinetic. Likewise, soul, it can not be destroyed, it changes the form as said in Gita:

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Weapon can not cut this self into pieces, fire can not burn it, water can not wet it wind can not dry it. One can find a great similarity in energy and soul.

Fire can not burn the space. The soul the self – is minut-
est, more delicate than the sky (space). The “power” that the sun has “to shine and give warmth”, the moon has “to shine and bestow coolness”, the fire has “to burn”, the water has to “to dissolve” things in it, the earth elements have “to cut into pieces and break up objects” etc. this “power” is derived from the divine source. That “power” is only an insignificant fraction of the divine itself. However, the soul the self, the atman itself is divine. It is the atom and energy. It is the contact with mundane world that has impoverished out thoughts about ourselves, has humbled us and made us identify ourselves with the body. The combination of Body – Mind – Intellect. A complex novel formula of universe, life, soul and energy is presented thus:

Double helic elegancy DNA double helic

Krishna Radha

नमः भक्तं देवाय गृह्वः हिन्दूः च जनधिताय के भगवान गीताय नमोऽभ

I offer my prostrations to Lord Krishna who is Lord Govinda. He is the para-brahman (the creator of Universe), the supreme reality, who is ever-acting for the welfare of cow, the store house of brahman (all energies) and ultimately the welfare of all beings in the universe.

The bondage of attachment to the worldly mate-
rial is trouble shooter, painful and undesirable, but the same with infinite is desirable and eternally peacefully blissful. The wisdom is an enzyme ligase which focuses us to the infinite, bonding strongly with the divinity – an absolute truth. Spirituality is eternal, removes stress and attaches to infinite (furoZdkj ijcEg& Nirvikar parabrahman).

EPILOGUE

The more spiritual seekers, who followed the reli-
gious scriptures in toto became greats like Kepler, New-
ton (inspired by a theism that came straight from pages of the Bible), Aryabhatt, Bhaskar Rabindra Nath Tagore, Mahatma Gandhi, CV Raman, Abraham Lincoln, Picasso etc. The disasters occurring in the name of religion are the indications of our poor spiritual condition and inability of many to separate what is true from what is not true, being led by the blind because there is no one else to sat-
isfy their spiritual hunger. Ian Goldy rightly commented that if we scientists, however, feel a sense of deja vu, per-
haps it is because this is a criticism more often levelled at science itself – the destructive power of gunpowder, nuclear weapons or fears of genetic manipulation lead-
ing to eugenics for example.
One more venturous example of biologists working these days, after human genome was decoded three years ago, the scientists claimed that with this knowledge it would be possible for humans to live for as long as 200 years or more (6007). Is this claim realistic or just audacious hyperbole? We have come to know that there is no single master gene for eternal life. Markandeya of Indian mythology was blessed by Lord Shiva to be sixteen years old forever. And the biblical patriarch apparently lived 969 years, while Markandeya can occur only with divine intervention, is Methuselah possible through terrestrial biology? How long a human being engineered to live? This is a ticklish question and biology of this may gain from the knowledge of physical forces or interactions, which physicists dream that at least three interactions are assumed to be unified. The physicists, who won the Nobel Prize for 2004 in physics, described how the theory of one of nature's fundamental forces works, the force that ties together the smallest pieces of matter – the quarks. These physicists (David Gross, David Politzer and Frank Wilczek) have through their theoretical contributions made it possible to complete the standard model of particle physics, the model that describes the smallest objects in Nature and how they interact.

The four forces (or interactions) of Nature, their force carrying particles and the phenomena or particles affected by them. The three interactions that govern the microcosmos are all much stronger than gravity and have been unified through the Standard Model.

At the same time it constitutes an important step in the endeavour to provide a unified description of all the three forces of nature, regardless of the spatial scale from the tiniest distances within the atomic nucleus to the vast distances of the universe. How the biologists and spiritual seekers would meditate upon this discovery? The divine force is an infinite where all the forces are unified. Ultimately physicists are going to prove this which is already

There are some complacents, who dogmatically claim that Christianity provided the necessary background for science with its belief in an ordered universe. How do they account for the fact that for three part of the Christian era the home of science was confined to the non-christian parts of the world, such as China, India and the Islamic countries? Herman Bondii (Nature 365, 484: 1993) refuted strongly the claims that Christianity differs from some earlier religions by its opposition to human sacrifice. How can that are claimed for a religion that for centuries gloried in the burning of heretics and of witches? It is true that pathological variants are not the religion's part though these might be the offsprings of so-called "seers", church saviours (Patriarch) or else buddhists. Let me put the things straight in emphatic manner that religion only increases human goodness through spiritual senses, if it does otherwise, that is not acceptable in science and humanity.

Members of the united nations are gearing up to debate a highly contentious issue whether to introduce an international ban on human cloning. It is a generous step in human history to prepare human clone, which may destabilise the whole human cultural civilizations including marriage institutions raising several ethical questions in the realm of human religion. Does it not need a ban or a sense should guide scientists posing a self restrain not to go ahead with the science of human cloning, which may throw us back into the medi eval era. Is science this? It is sensible or a non-science (sense). The spirituality should come to the rescue of science, so that it may not go berserk. We are also much threatened of bio-terrorism. In true sense Ladens are the creations much of science and little of politicians, but they have nothing to do with religion at all. Religion develops a sense, a spiritual power leading to intuition to develop and progress. No retardations have any generation in any of the religions. The banishment by any legislation may not bear fruits, it is only that a good sense must prevail in each and every human being to desist away from unethical sciences.
described in Gita. The biologists may better perceive to apply this theory on DNA molecule representing the standard aspects of life sciences.

In essence, it remains to be investigated that whether the microorganisms more specifically viruses and bacteria have any greater role to alter human thoughts, philosophy, to induce intuition, to enhance goodness or create pathological variant in the form of demons etc. There are viruses, which enter the other body quickly, are to be considered as most advanced organisms capable of making host body to dance as they would monitor the master molecule—the blue print of life. The Adiguru Shankaracharya, the great sage of 9th century had possessed the power to enter the other’s body and thus lived a part of life in the king’s body and safely returned to his own cast. Is it not a viral like phenomenon? Viruses and microbes have the greatest power on this planet. The minutest are the greatest. The physicists have identified four forces in the universe, but in my opinion, they should add to it the fifth force of DNA or microbes and later there should be a super most standard model to describe the smallest objects in Nature. Will they ponder upon?

The spirituality has long been a powerful source to overcome ‘stresses in life of human beings. There are millions of case histories, who were cured of their chronic stress conditions through spiritual exercise (Dhyan Yoga). An illustrative example of William S. Biggs, an electronic engineer and president of LI-COR, Inc. company which manufactures high tech plant research instruments, can be of great help to us in understanding the unimaginative powers of spiritual exercise.

W.M. Biggs had established a thumping returns in the company, which he established after giving up the jobs of an Electronic Engineer achieving all the goals and closed the year with nearly $1 million in sales and a healthy profit margin. Then at one time “when I had made it, my life began coming apart”, says Biggs. The greatest worry plagued him was of the sustenance of the success he achieved and the possible future failures. He was worrying for nothing, but a fear psychosis infected him—a viral nature infection probably? He had a nervous break down with sleeplessness and unnecessary anxiety, the blood pressure was measured by doctor as 155 over 108 (for a 37 age) - another additional factor to worry for. He was ultimately diagnosed as manic depressive, which could be genetic but more fuelled by stress.

For few years he ran on medicines including tranquilizers, lithium carbonate to stabilize the manic depressive mood and several other medicines. There were almost no hopes for recovery because of the seriousness of the problem. The lithium therapy leaves no point of return to normalcy. Life became a mess. Some of his Christian employees talked to him to seek solace at the feet of Jesus Christ and bible which he earlier rejected as a funny and a mere book of bunch of stories.

Biggs later realized that his decision to have personal commitment to Christ and to accept his marvelous grace was most important part in his life. But he got to begin relieved of his chronic ailment only after total surrender to Christ but not before that. He fully practiced the spiritual powers with nishkam karma yoga theory of Lord Krishna, then only healing became evident. He says “my source of stress, I discovered, was in my mind- my lack of faith in God’s promises to meet my needs”. Just as Lord Krishna exhorts to Arjuna “you are a medium to perform an action, you surrender unto me, I will take care of your all well being. There is nothing beyond me or before me. I am the beginning and I am the end”. What a philosophy? The same philosophy is evident in apostle (Phil 4:19)” And my God will meet all your needs according to His glorious riches in Christ Jesus”. Biggs was off the medicines to the utter surprise to his doctors. At one place in his article (Contact, December, 1987/ January, 1988) Biggs confesses “Since 1985, God has been performing in my life what I refer to as “spiritual surgery”.

All the way WM Biggs, who used to shun away the Christ and Christianity at one time, found a great shelter under the umbrella of spiritual treatment and he started speaking very loud later of Christ, who can be simply considered as incarnation of Krishna. In Isa 42,8, He said “I am the Lord that is my name I will not give my glory to another or my praise to idols”, very similar to what He said in Gita.

In conclusion, a hypothesis can be derived that nucleic acid, the master molecule of all the living objects has a vital role without which there can not be existence of any life. There are many scientific enigmas which still remain mystery and there are several lacunae in religion that can never be considered a religion epithet, whatsoever. The DNA has a long life as much as 20 million years, it has a replication and mutative nature, it can enter into its host verily like a divine molecule. The great messages are therefore, transmitted through microorganisms (viruses, bacteria, mollicutes). They can also serve as the reservoirs of universal information, which could be transmitted to the specific organisms at a proper space and time. This is the theory of biological relativity. David Jones (Nature 352, 767, 1991) writes : Daedalus argues that-DNA is good at forming microscopic infective particles such as viruses and plasmids. So Daedalus argues that it must escape from dead tissue in the form of fertile plasmid-like spores each containing a few genes. These thereafter drift around the environment. Every so often, such a spore will chance to be present at an act of sexual fertilization. It may then be taken up by the ovum along with the sperm, and can start a new genetic career. This research aspect indicates the life after death and probably the mode of transmission of messages of previous life to the next life. These aspects may be researched out completely tomorrow. The days may bring many new informations, discoveries (literary as well as scientific), but the spiritual life will never change. It will remain as absolute truth as life and death.