

## **HOLISTIC ACCOUNT OF REALITY**

### **Necessity of an Integration of Science and Religion for the Better Future of Humanity**

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#### **1. Introduction**

Science and religion were said to be in conflict exhuming the condemnation of Galileo and Chardin by religion and the rejection of God as a hypothesis by La Place. Science, however, became aware of its own limitations by encountering profound questions about the beginning, evolution and future of the universe, beginning, evolution and goal of life, and the inability to control diseases etc. Religion with its dogmatic arrogance in the past dictated a description of the universe which the sciences had shown to be wrong. Now the extremist view from the part of science as scientism and from the part of religion as dogmatism lost their arrogance and became aware of their own inherent limitations and stopped encroaching the other domain making category mistakes. Thus science and religion are coming all the more closer shedding the age old suspicion and looking forward to work together in resolving the acute problems humanity facing today. The ecological crisis, malnutrition, poverty, illiteracy, hunger and diseases can be contained if the scientific resources and the religious resources could work together. The Western culture is dominated by the rational science and technology which almost rejected the religious perspective while the Eastern culture overemphasized the spiritual rejecting matter as an illusion. A new civilization could be founded on an integrated outlook on science and religion that can facilitate life through the innumerable technological gadgets the technology can provide while religion can offer profound meaning to life enabling humanity to be the stewards of the universe. Such a golden opportunity is visible in the horizon through the integration of science and religion as the West is in a crisis due to the loss of its own religious roots and the East is impoverished because of its own failure to acknowledge the existence of matter.

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Therefore, I summarily present the critique on science and religion given by a French scientist who became a Buddhist monk who examined the frames of references, the foundations of science and the necessity of complimenting science by incorporating the religious perspectives. Thereafter, I examine the observations of the various philosophers on our culture as fragmented and crisis ridden by science and technology and arrive at my own conclusions from the many years of serious reflections and pondering over the science and religion dialogue and propose a plausible interaction strategy and a factual future research programme.

## **2. Western Science Interacting Eastern Religion**

*The Monk and the Philosopher: A Father and Son Discuss the Meaning of Life* is written by a father son duo, Jean Francois Revel and Matthieu Ricard and published by the Schocken Books, New York, 1999. It contains 351 pages of interactive conversations on science and religion and the authors' conflicting perspectives and discovery of drawbacks pertaining to the Western culture and civilization. An extended examination of the book is given since it analyses the foundations of the Western civilization and its lack of religious components which were eliminated gradually from the renaissance period due to the fragmentation of reason and faith and the total elimination and annihilation of all faith components from the realms of the society and the individual. Revel raised fundamental questions on Ricard's conversion from science to faith and his growth in religious life, while the son questioned the father's concepts on the French liberal life, his search for the deeper dimensions of meaning in life etc. The philosopher father raised questions and doubts on Buddhism and on the scientific validity of the Buddhist meditation practices. The son who was a scientist and later turned out to be a Buddhist religious monk answered that the Buddhist religious practice was a contemplative science. According to him, it was a science of the inner mental world that complemented the discoveries of the modern science that engineer the physical world. As we live in an era where religion and science are coming together to solve the problems facing humanity, these critical reflections offer more than a dialogue between a scientist and a philosopher. It shows an emerging trend that understanding the spiritual dimension is important or even more significant than the discoveries about the physical universe. As both father and the son are intellectuals, their questions and answers delve deep into the foundations of science and especially of the Western culture which is at present devoid of that faith and reclaims the importance of faith in human lives. Thus, this dialogue evolves as an encounter between the rational Christian West and the intuitive religious East.

In 1966, Ricard was at the *Institut Pasteur* doing his doctorate in molecular biology under Prof. Francois Jacob, the eminent Nobel Prize winner for biology. Just after the defence of his doctoral thesis, Ricard stunned his mentor Prof. Jacob and his father Revel by announcing that he was heading towards Kathmandu in order to become a Buddhist monk. Both of them could not understand the logic and Ricard explained to them his reasons. Then only they came to know that already several times he had been to Kathmandu with the Buddhist monks and liked their religious life. For Ricard, the encounter with the Buddhist monks started accidentally. He got a chance to see the editing works of a film made by his friend Arnaud Desjardins on the Buddhist lamas who fled the Chinese invasion in 1959. Arnaud filmed them at close quarters and those films were very striking. At that time, Ricard had six months of break and was about to go to Japan to practice martial arts. But the pictures of those sombre lamas always haunted him, and indeed, inspired him. These lamas touched him as embodiments of perfection and compassion. In them he saw matchless purity and deeply inspiring personality. As Ricard met many illustrious people in every walk of life at home brought by his famous father, he found that though these intellectuals and artists have possessed mastery in their fields, they lacked human qualities such as altruism, goodness, sincerity and love. The grace filled faces of those monks, for Ricard, seemed to reflect what they taught. So this experience made Ricard to go in search of them and to imbibe this spirit of sympathy and love into his own personality.

As he was continuing his research, Ricard had a feeling that he was not using the full potential of his human life and felt that day by day he was drifting away from life. "For me, the mass of scientific knowledge had become a major contribution to minor needs."<sup>1</sup> His own scientific activities thus became worthless and he mentally felt inclined towards the maroon robe and the practice of inner control than the external environment. Just after the doctoral defence, he flew back to Kathmandu and took *sannyasa* from Kangyur Rinpoche. Thus Kangyur Rinpoche became a focal point of Ricard's life. Under his training Ricard learned religious life, meditation practices and mental control. After twenty long years, he became an assistant to the Dalai Lama and accompanied him in his world tours. He wrote *Journey to Enlightenment* and translated many Tibetan books into English and French. He lives at present at the Shechen Monastery in Nepal where part of the conversations took place.

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<sup>1</sup>Ricard, *Monk*, 16.

### 3. The Necessity of a Contemplative Science

According to Ricard who is now trained both in science and religious life, meditation is not just to sit calm and have a beatific mood. It has an analytic and contemplative approach to understand the nature and functioning of the mind, and to perceive the transitory nature of things. Post meditation practise consists of avoiding slipping back into our habits exactly before meditation. Meditation is an understanding of the nature of mind and it's functioning so that through it one becomes a better human being, having openness, goodness, patience and an inspiring life in its everydayness. It is to blossom the inner peace.

According to Ricard, spiritual life contains three complimentary aspects: vision, meditation and action. The vision is the philosophical perspective, an investigation of the ultimate nature of things of the phenomenal world and of the mind. Meditation is familiarising with this vision and integrating it through spiritual practice into the stream of consciousness in such a way that the personality identifies with the vision. Action is the expression in the outer world of the inner knowledge acquired through vision and meditation. It is a matter of applying and maintaining that knowledge in all circumstances. This is the phase in which morals and ethics enter into the personal life. This enlightenment enables one to undertake a particular action and avoid another and thereby give happiness to others while making progress in one's life in spirituality.

Spiritual life or contemplative life is a matter of transforming oneself, a science of the mind, and a search for truth. The spiritual search, when it brings true inner transformation, is an experience that is fully alive, an unceasingly renewed freshness. "We can end a conflict, or a war, but there will always be more, unless people's minds change. There is a way of discovering an inner peace that does not depend on health, power, success, money, or the pleasures of the senses, an inner peace that's the source of outer peace; an inner certainty that nothing and no one can ever take away from me."<sup>2</sup> Ricard was in search of that ultimate happiness which nobody can steal from him.

One of the practical techniques for meditation involves concentrating on the breathing. The inhale-exhale cycle helps a person to understand the functioning of the body system and gives a clue to the inner dynamics of the mind. There are also dance programmes that lead people to meditative moods and explain the dynamics of the mind. One of the austere techniques

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<sup>2</sup>Ricard, *Monk*, 17.

is wearing a wet cloth in winter season and drying it just by the body heat. As soon as the cloth is dried, another wet cloth is put on the body. This practice is done above 13,000ft and the temperature at winter season will be very low. Ricard practised it for five such winters continuously. Such severe actions help the practitioner to tame his body and through that his mind and understand the non-existence of ego and feel the momentariness of life. Rituals are correct actions, etymologically. They call for reflection, meditation and prayer. The recitations during the rituals are invitations to meditation and the music is to calm down a person than to excite him or her. It is not merely an artistic expression but an offering to arouse mindfulness. It is a group practice. The supernatural beings are symbolic expressions of qualities and not gods. They are skilful visualisations enabling the practitioner of meditation for sharper concentration. Instead of dispersing the mind, they concentrate on the mindfulness to stabilise the mind to evolve the primordial Buddha nature in you.

Rituals are also techniques that enable one to eradicate the non-existent ego and to attain enlightenment. To prostrate before the deity and the master serves to annihilate one's pride and it is pride that prevents wisdom and compassion from emerging. "True merit does not accumulate on the peak of pride" thus goes a Tibetan phrase. When one touches the ground with five points; two hands, two knees and the forehead, one aspires to eliminate five poisons namely, hatred, desire, ignorance, pride and jealousy, by transforming them into five corresponding aspects of wisdom. As you gather yourself from the prostration you pray "I gather all the sufferings of all beings upon myself and rid them entirely of them all."<sup>3</sup>

Emotions like hatred, jealousy, dissatisfaction, desire etc., do not have the power that we wrongly attribute to them. When we examine them closely, in their nakedness, we see that they do not have the solidity and power to restrain a person that they seemed at first sight to possess. Such continuous examination and practice in perseverance will keep the mind in its natural state. As soon as negative thoughts arise, first one has to recognise it as spotting a person in the crowd. The second stage is like a snake untying its own knot, one can liberate oneself from these knots of the self. One needs no external help. Just like the knot in a horse's tail, it is undone just by itself. Thus by discovering the unreality of thoughts, one can liberate oneself from harmful thoughts; thoughts come and go without enslaving. The mind stays at a clear wakeful awareness.

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<sup>3</sup>Ricard, *Monk*, 260.

#### 4. Search for the Science of the Mind

Ricard after delving deep into the Buddhist spirituality, critiques the West which is driven by science and technology, but devoid of religiosity and spirituality. He is of the opinion that the science of the mind has been neglected in favour of the science of the material world. He argues that objective science in the West has helped to alleviate physical miseries, diseases and natural calamities. By controlling the environmental factors, science has raised life expectancy, in terms of purely external progress. However, Ricard diagnoses that it got harmful consequences like intolerance and aggression. For him, the phenomenal world is the world of relative truth. The relative truth of the phenomenal world is the world of science, of cause and effect. The ultimate truth is emptiness or absolute truth that is non-dual and cannot be attained by any logical thought. The Western mind is in search of the relative truth connected with the phenomenal world at the expense of the Emptiness is not nothingness related to the eternal truth. It is an existence of all possibilities. Emptiness is not a negation. It is an absence of any true existence, it is not 'like an empty space within a container, but the very nature of the container and whatever it contains.'<sup>4</sup>

The analysis of history and the interpretation of time as past, present and future belongs to the phenomenal world. The emptiness, is an unchanging time, is beyond the phenomenal time. In Buddhist cosmology the cycle of the universe has three dimensions. There is a period in which it is formed, a period in which it remains present and a period in which it is destroyed, and a period in which nothing is manifested, that is emptiness. It is an all possibility, as a sutra explains, emptiness is form and form is emptiness – it is something like matter is energy and energy is matter.

Ricard goes on to explain that the phenomenal world is the result of our interactions with our consciousness; it is neither a projection of our mind nor totally independent of our minds. An inner realisation of the true nature of things is therefore necessary.<sup>5</sup> The contemplation of the absolute truth transcends the duality of thinking, cause and effect, subject object dichotomy and thus can discover that nothing exists in itself. Ricard also reveals that Buddhism does not claim any monopoly of the truth and it is not constructing any dogma either. But what it does truly is developing a science of the mind and techniques to alleviate suffering permanently and liberate all living beings. Unlike the science that transforms the

<sup>4</sup>Ricard, *Monk*, 137.

<sup>5</sup>Ricard, *Monk*, 143.

environment, Buddhism tries to change the individual and to attain a realisation of the ultimate nature of things through the manipulation of the mind, namely, through contemplation. It also aims at transforming the society through reforming the individual. It is a philosophy of happiness accepting the reality of the unsatisfactoriness of the ordinary world. Buddhism, according to Ricard, is a movement from pessimism and apathy to intense mental activity and stillness of the mind before the pleasures and sufferings of the world. Buddha is a doctor, Buddhists are all those who are sick, and spiritual practices are the processes of getting cured. Buddhism is a manual for living properly and attaining death as a culmination of good life. Buddhist teachings are like travel guides that lead others along the same path that Buddha took for himself.

Transformation of one's self starts by the elimination of the infatuated self or, as we find in psychological terms the ego. Thus, the field is cleared for goodness, humility and altruism. Ricard felt that Buddhist monks are endowed with peace, compassion, grace, goodness, altruism, sincerity and wisdom. They meticulously practice what they preach and possess deep inspiring perfection. But when we compare them with scientists, artists and poets, often we find them unhappy about themselves, full of self inflated pride, and lacking in perfection. Buddhism emphasizes that it's the mind that colours ones actions. Power and money do not bring happiness. Jealousy and pride actually destroy all joy in life. It is our experience that small clouds do not bring rain. If an unbridled desire dominates, the power of constructive altruism, an inner freedom that is outwardly exhibited as inner certainty, will definitely vanish.

Ricard emphasises that science is West's success and it does not speak to each one of our hearts in our individual quest for happiness. He observes that philosophy too lost its function as a source of wisdom and is restricted merely to knowledge. Philosophy's success is its ability to give birth to different sciences. The idea of the regeneration of human person, the formation of a just and happy society etc., which were preoccupations of philosophy in earlier times, no longer holds good in the present day. Science has lost its search for wisdom. It being analytical often gets lost in the inexhaustible search for complexity and minute details. Ricard quotes the Arab phrase, 'once you start counting you can never stop it.' Ricard is of the opinion that spiritual practice is based on experiential exploration and its discoveries are to be pushed as far into the inner world even as science pushes its explorations into the outer world. The explorations of the mind are always fresh, and they are ceaselessly renewed.

Buddhism, according to Ricard, aims at recognising truth at all levels, inner and outer. But it establishes a hierarchy in which material development without spiritual nourishment can only lead to discontent. Instead of wisdom, if society bases its foundation on information, technology, such a civilisation becomes nostalgic and violence ridden. The nineteenth century Tibetan Monk Mipham Rinpoche had made sketches of flying machines, all sorts of other extraordinary inventions;<sup>6</sup> but burned all his notebooks saying that an inner transformation is necessary rather than invention of machines, and getting lost in everyday occupations. So Buddhism gives priority to the inner world than the outer world. The society can only be transformed by changing the individual. The ceaseless work is to make the individual spiritual and work for achieving others' good. The intellectual games of science, according to Ricard, are of extreme complexity but with a minimum of usefulness. He criticised the scientific progress terming it then as technological pseudo-progress. According to him, the technologically developed factory farming methods have worsened the sufferings of animals which at the same time have been creating new diseases for humans. Ricard discovered that science does not give "meaning to my life ... an endless dispersion into detail ... disillusioned with the research, but in search of a contemplative science."<sup>7</sup> Thus he did not change his career as a scientist; he moved from the science of the world to the science of the mind; he found meaning in serving a contemplative science.

Ricard also criticised the West for its vain and frustrating quest for change. According to him, unable to find happiness within itself, the West looks for changes in the externals. As a Westerner he observes that the West has a deeply ingrained preoccupation with novelty, instead of spontaneous expression of intimate feelings. Often the quest for novelty dupes the public and dazzles the naïve. Novelty in Buddhism is the importance given to the present, to the freshness; it relives the present than the lost past or the imaginative future. In the Western tradition, the moral and the spiritual becomes a dimension of wisdom and the West believes in history, progress and productivity in time, a discovery that is always new. According to Ricard, all these are false and the West failed to understand the importance of the spiritual and the mind. Ricard commented that for the last two centuries, the West has taken very little interest in contemplative science.<sup>8</sup>

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<sup>6</sup>Ricard, *Monk*, 161.

<sup>7</sup>Ricard, *Monk*, 4.

<sup>8</sup>Ricard, *Monk*, 46.



Ricard also severely criticizes the reductionist approach of modern science. For him, this atomistic and divisive approach cannot be applied to the consciousness, because consciousness cannot be reduced to chemical and biological structures or neuro-biological models for medical materialism. These models cannot explain the mechanism of decision making; "if man is no more than his neurons, it's hard to understand how sudden events or deep reflection and the discovery of inner truths could lead us to completely change the way we see the world, how we live and our capacity for inner joy."<sup>9</sup> The killings in Bosnia, Rwanda, and other conflicts could also not to be explained in terms of these neuro-biological models.

The West, according to Ricard, indicates a pointlessness of life and lacks meaning. Till seventeenth century, the West has had the "torch of reason." The philosophy of enlightenment was accompanied by hope based not only on the expansion of science but also on the necessity for widespread education. A concept of compulsory schooling – secular and free – has established the society. The basic weakness of this science oriented education is that it cannot make a human a better person. The science of the West is preoccupied still with the tangible phenomena by improving the external conditions only.<sup>10</sup> This affects, however, the quality of life and the emphasis on externals has eroded the mental and spiritual and the Western culture lost its moorings. So Ricard perceives that the spiritual has to be re-rooted for a meaningful life in the Western society.

On the other hand Jean Francois Revel, Ricard's father was a member of the French Academy. He was born in 1924. He wrote the famous books, *How Democracies Perish: Without Marx or Jesus*. He was the editor of the French weekly newsmagazine, *L'Express*. As a philosopher and political scientist, he always sought perennial alternative to religion. He was also a formidable proponent of Western individualism and secularism. He was upset about Matthew's decision, but continued his contact and did not fall out with him. His questions arise from these foundations of Western scientific objective outlook that has a natural suspicion for any religious phenomena.

According to Ricard, the West has never encountered a contemplative science, but it developed the natural sciences and hence ignored and continues to do so the contemplative science. He might have been forgotten about the Christian past of the Western civilization as from the religious spirit the rational scientific objective outlook germinated.

<sup>9</sup>Ricard, *Monk*, 59.

<sup>10</sup>Ricard, *Monk*, 350.

Ricard quotes Einstein's prophetic words as meaningful proposing that the religiosity and spirituality would return to humanity when he said,

... the religion of the future will be a cosmic religion. It should transcend a personal God and avoid dogma and theology. Covering both the natural and the spiritual, it should be based on a religious sense arising from the experience of all things, natural and spiritual, as a meaningful unity.<sup>11</sup>

According to Ricard, Buddhism accepts the discoveries and doctrines of the modern science, and it does not accept any metaphysical claims such as possessing an ultimate explanation. Buddhism won't change its point of view because of the change in scientific discoveries; its concept of a just society is based on spiritual values, rights and responsibilities of the individual. Totalitarian regimes and systems have failed miserably due to the restriction of the individual freedom, instead of, instilling in them, a sense of responsibility.

Revel thinks that the theoretical foundation of Buddhism seems to be unproved and unprovable. Through the conversations, Revel discovered that Buddhism is not at all passive and the notion of inaction is a myth. Though the West has triumphed in science, according to Revel, it is not at all guided by wisdom or ethics. Instead of spirituality, Revel considers ethics to be the meaning giving mechanism of the society. But he observes that though the East brings an ethics, it is devoid of rational foundations. Buddhism, according to him is more intuitive and lacking in intellectual content. Eastern wisdom is not based on scientific certitude, and scientific certitude does not lead to wisdom. For him, both are indispensable and complementary.

Ricard on the other hand concludes that happiness is not just some agreeable sensation but the fulfilment of living in a way that wholly matches the deepest nature of one's own being. When we do not know how to give meaning to life, it leads to frustration and discouragement, instilling a sense of futility that may even lead to the ultimate failure, suicide. The unhappiness or feeling of failure is due to the persistent dissatisfaction dominating the mind. This dissatisfaction comes from the inability to overcome the mental poisons of hatred, jealousy, attachment, greed, pride, etc., which arise from a self centred vision and the attachment to the idea of the self. Buddhism is, therefore, a science of the mind, a contemplative science, more in tune with our times than ever. Buddhist path is designed to make better human beings. Science has neither the

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<sup>11</sup>Ricard, *Monk*, 279.

design nor the means to help us attain that goal. Its attempt is to understand the tangible phenomena and to control it and utilise the technique to facilitate material needs. Science can improve the conditions of life. Buddhism does not coerce a person to follow the path; but gently invites him without dogmatism.

Both, the scientist monk son and the philosopher father respect each other, but the two are in sharp disagreement about the issues that each of them considers to be of importance. Ricard perceives the necessity of a contemplative science transcending the relative truth of the phenomenal world reaching out to the eternal truth which can only serve as the antidote to the material, meaningless approach of the West. However, the intellectual and irreligious Revel disagrees and suggests that religion especially lacks intellectual content. These conversations open up one's mind to an intellectual dialogue on the rational, scientific and religious foundations of civilizations as well as on the development of the individual self. It choreographs the future course of action and integration of science and religion for a better humanity.

### 5. The Diagnosis of a Crisis

There is a general awareness that in our planet everything is not going on well. The progress in our living standards provided by the technical innovations brought environmental and ecological problems. The relationships between individuals, societies and cultures are generally considered to be loosening. More and more groups of people, politicians, philosophers and philanthropists are aware of and concerned about the breaking down of relationships among cultures, societies and individuals. Fredric Jameson observed that a sense of crisis permeates the Western history after the sixties,<sup>12</sup> including the crisis of the social democracy, welfare state, Western culture etc. Constant refrains of the end of philosophy, history, ideology, art, social class etc., are aired by social critics and philosophers.<sup>13</sup>

Edmund Husserl, the illustrious founder of the phenomenology, in his celebrated work "*The Crisis of Western Sciences and Transcendental Phenomenology*" argued that the Galilean style of science thrown the Western culture and knowledge tradition into an inescapable crisis. Galileo

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<sup>12</sup>A series of crisis are narrated in F. Jameson, *Postmodernism, or the Cultural Logic of Late Capitalism*, Durham, USA: Duke University Press, 1991.

<sup>13</sup>Derrida narrates a series of ends in his essay "Of an Apocalyptic Tone Recently Adopted in Philosophy."

is the centre of this article, which was the result of Husserl's last years of labour and published as a book later. He died without completing it. As an antidote to this disease of crisis, Husserl proposes his phenomenology and the life world. Husserl caricatured Galileo as the symbol of the whole of the Western science rather than accusing him of any particular events or theories he had put forward. He knew very little of Galileo, but he was attacking the science Galileo inaugurated.<sup>14</sup> Husserl found it as a serious problem that the direct mathematization and geometrization of nature without taking into account the inextricably intertwined life-world which according to Husserl, catapulted the modern world to a deep crisis.

Husserl summarized the argument against science as the *technization* of nature.<sup>15</sup> He delved deep into the general lament about the crisis in European culture and discovered that the root cause of the crisis was due to the Cartesian self doubt and scepticism of the philosophico-historical origins of the culture. Thus Husserl attempted to give a solid foundation beyond doubts that might become the corner stone for all disciplines which he called as phenomenology. Thus he set out to arrive at the essence of things at the realm of pure consciousness through a method consists in *epoche* – a series of reductions, namely phenomenological, eidetic and transcendental reductions. Heidegger turned the Husserlian bracketing methodology from the content of investigation into the how of investigation and arriving at the thing in itself or the disclosure of the being. The glorification of the reason inaugurated by the modern philosophers reaching to its zenith as scientific rationality is thus thrown away to the dust bin of history by Heidegger. He accused science of squeezing the essential characters of humanness and turning it into a need based product that could be fabricated. Thus he condemned science and technology with a tendency of calculation, machination and compositing and imposing its coercive forces on being undermining it as annihilable and coercible. The criticisms of Ricard, must be seen in the background of the analysis of the Western culture and its imposing dominance by science and technology as illustrated by Husserl and Heidegger.

Husserlian criticism against science was further developed by Heidegger and other phenomenologists who attacked the positivist special position given to science as the refinement of rationality and every other discipline especially philosophy to be modelled after science. Husserl's

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<sup>14</sup>Aron Gurwitsch, "Galilean Physics in the Light of Husserl's Phenomenology" in McMullin, *Galileo Man of Science*, Boston: Basic Books, 388-401, 391.

<sup>15</sup>Gurwitsch, "Galilean Physics in the Light of Husserl's Phenomenology," 391-97.

disciple Heidegger extended this analysis of the cultural crisis and blamed that it is due to the ascendancy of science as calculative manipulation and it lacks meditative thinking which was practiced in the Greek life world. According to Heidegger the root cause is the oblivion of the Being and he made a clarion call for being aware of the presence of the Being. From the tradition of science itself, philosophical critiques of science like Thomas Kuhn, Feyerabend, Michael Polyani and others claimed that science has nothing special from the other human disciplines and even dethroned the rationalism of science itself and claimed the scientific method itself is to be at fault. An extreme position was taken against science and Galileo by Karl Friedrich von Weizsaecker that the ultimate blame of developing the atomic weapon would fall on Galileo because of his development of the scientific methodology.<sup>16</sup>

### 6. Root Cause of this Impending Crisis

Is science at the root cause of the crisis as envisaged by Husserl and his adherents like Heidegger? *Techné*, according to them, is misunderstood and its over emphasis led the civilization into a mere calculative machines. There are others who go further into the philosophical foundations of science and criticises the Cartesian dualism as the root cause of the crisis. Fritjof Capra<sup>17</sup> and many others<sup>18</sup> found the root cause of the Western cultural crisis as the Cartesian mechanistic and dualistic epistemology and imagination. However, I suggest that it is due to the bifurcation of the reality into the phenomena and noumena by Kant and the gradual development of the analysis of the phenomena exclusively at the expense of noumena eliminating it from the totality of the human sphere and even blindly blocking and negating the ability of human reason even to investigate it.

### 7. Kantian Fragmentation of the Reality

In order to comprehend the plurality of things and manifoldness of expressions, humanity proposed some principles. Both in the East and the West, they proposed certain building blocks like fire, air, water, earth and

<sup>16</sup>Karl Friedrich von Weizsaecker, *Die philosophische Interpretation der modernen Physik*, Deutsche Akademie der Naturforscher Peopoldina, Halle, 1989.

<sup>17</sup>Fritjof Capra, *The Turning Point*, New York: Simon and Schuster, Bantam Paperback, 1983.

<sup>18</sup>Orla O'Reilly Hazra, *Evoking the Spirit to Practice Religiously: Somatic and Narrative Ways of Knowing for Transformative learning in a Living Tradition*, PhD Dissertation, Fordham University, 2009.

space as the constituents of this myriad manifoldness and thus derived a rational explanatory principle. The atomists both in the East and the West brought forth the explanatory theory of atoms to answer the multiplicity they experienced in this universe. Thus Democritus in the ancient Greece and Kanada in the ancient India proposed the atomic theory of indivisible atoms moving in the empty space colliding and structuring sustainable forms. *Purusha* and *Prakriti* of the Samkhya in ancient India and Heraclitus and Parmenides of ancient Greece emphasized the dual aspects of change and permanence as the ultimate principles of the universe. The abstract *apeiron* of Anaximander of ancient Greece paved a mathematical and abstract method of explaining the plurality experienced in this universe. In the Western tradition, Socrates gave a humanistic twist to this materialistic natural description of the universe by introducing knowledge and ethics and the importance of human life while in the Eastern tradition, Buddha, Jinna and other spiritualists negated the materiality and upheld the spiritual transformation of the human person as the ultimate aim of life. So in the East, the spiritual transformation became the paramount investigative strategy leading to a total oblivion of the material reality.

In the West, Plato took the abstract, mathematical interpretation of the universe of his predecessors and refined it into the theory of the world of ideas that is eternal and perfect while the terrestrial life as a shadow of the life in the World of Ideas where everything united with the One, the Good and the Beautiful, which in Indian categories as Sathyam, Sivam, Sundaram. However, his disciple, Aristotle blended the three different streams of thought, namely the abstract – mathematical, the imaginative – tangible and metaphysical into a single whole, providing a holistic vision. Thus a fusion of physics and metaphysics is visible in his interpretation of the universe which became the foundation and bulwark of the western theology, philosophy and science.

Unlike Plato, Aristotle accepted the dual aspects of permanence and the flux of the reality as a fact even in this universe and in this life itself. He did not consider and explain the reality as existing somewhere outside the earth as pertinently described by Rafael's immortal painting where the two masters are debating with the raised forefinger of Plato pointing towards the heavens showing the reality as out there while Aristotle asserting by his palm that the reality as here, down to earth and now. Aristotle, the greatest intellectual of all times, compiled, fused and integrated all the knowledge of his times into a whole. Thus the Heraclitan flux, the Parmenidean permanence, the Anaximanderian abstraction, the

naturalists, five elements and the structural forces and the Eudoxian circles, the common experience of the motion of the sun and the day and night along with the fall of objects were unified into a system of thought known as Aristotelian physics. Thus Aristotle reconciled the Platonic abstraction of the perfect world of ideas and the naturalistic empiricism of the Pre-Socratic philosophers through his division of the universe into the terrestrial and the celestial and designating different physical laws operating in these diverse levels.

Continuing his explanation of permanence and change in this universe, Aristotle developed four metaphysical principles – essence- existence, form-matter, substance-accidence and act-potency – in order to explain the permanent and changeable features of the universe. In explaining the polar opposite features of the universe, namely, change and permanence, Aristotle introduced the four causes, namely material, efficient, formal and final causes. For Aristotle, the most important cause is the final cause that is providing the purpose of the whole process. Thus, the purpose defines and guides the whole process and gives a meaning to it. Thus every process in this universe has a purpose and even every human action has a purpose. This concept of purpose gives the holistic outlook to the Aristotelian vision. Every tree grows with this purpose and this purpose gives it an organic development. There is a proportion between the parts and there is an overall guidance to its growth. This organic whole controlling and guiding the parts is very much the foundation of the Aristotelian physics and metaphysics. The whole is more than the parts and an assembly of the parts will not get the whole. This concept of holism is lost in the further development of humanity. The Aristotelian causal system is reduced into an instrumentalist dynamics by the development of science, paving the way for secularism, objectification, fragmentation and pragmatism.

Aristotle observed that his physics was unable to describe the totality of the universe and thus introduced the meta-physics. From the geocentric cosmology of a centre that is static and giving impetus to the motion of the planets, Aristotle proposed a mover that is static and stable yet imparting motion to everything else. Thus he introduced a metaphysical uncaused cause to complete the system of thought observing that such an explanation is necessary for completion. Aristotle found the insufficiency of physics in giving a complete description of the universe and thus took refuge in going beyond it, anchoring his thoughts in meta-physics and proposing the uncaused cause.

In the development of Western thought, the next colourful stage came in the middle ages through the profound fusion of faith and religion with these Greek philosophical investigations. The Jewish religion and its offshoot Christianity penetrated the Greek philosophy and Roman culture during the middle ages. The Jewish concept of God, Yahweh and the Jesus Event together form the core of Christianity. The Christian salvific mystery was fused with the Roman culture and Greek philosophy paving its way for the European or Western culture. St. Augustine used the Platonic philosophy to interpret the Christian faith rationally while St. Thomas Aquinas used the Aristotelian philosophy. Till the 12<sup>th</sup> century the Augustinian Platonic idealism influenced the Western Culture while after that the Thomistic system of thought termed as Scholasticism took over the Western Culture. St. Thomas Aquinas identified the uncaused cause and the unmoved mover of Aristotelian metaphysics with God and rationally interpreted the Christian faith. Thus through Scholasticism, Aristotle gave the rational foundation to the Western Culture which is predominantly Christian. Scholasticism was thus, a stunning fusion of faith and reason or religion and philosophy. Aristotle and St. Thomas gave the best model for a holistic description of the totality of reality, that is, developing physics and transforming it into metaphysics and utilizing that metaphysics to interpret the encounter between the divine and the human relationship with the divine. There are not many such exemplary models of philosophizing and theologizing after Aristotle and Aquinas.

Due to the over influence of Scholasticism during the medieval period, the Aristotelian geocentric cosmology and metaphysics were identified with faith and any challenge was considered as a heresy and schism and was heavily punished. Thus, the identification of the Christian doctrine with Aristotelian metaphysics became the characteristic feature of the middle ages. Nature was seen as created by God and is intelligible to human reason who in turn was created in His image. Thus nature was interpreted with an inherent order and regularity while the human reason was endowed with the power to penetrate and understand it. The assertion of the existence of the material reality with an inherent order capable of being interpreted in regular patterns was a great contribution in the intellectual growth of humanity. Compared to other cultures like India which denied the existence of matter, this basic presupposition made the difference in the development of science in the West. However, the Church authorities fought with tooth and nail any deviations from the Thomistic-Aristotelian system of thought blindly believing that it formed the foundation of Christianity.



Copernicus doubted and challenged the existing geocentric description of the universe because of the recurrent problem of the shift of Christmas to autumn instead of winter and Easter to winter instead of spring. This problem led the astronomer Copernicus to seriously doubt about the geocentric description of the world and to come up with an alternative sun centred scientific vision. It was Galileo who single-handedly fought for the promotion of the Copernican heliocentrism and the creation of a methodology of science by blending mathematics with experiment rejecting the Aristotelian logic. Thus Galileo corrected the geocentric view of the medieval period that integrated with the Christian faith and suffered due to the ecclesiastical politics purporting a conflict with the nascent science and the established Church. During the beginning of modernity, scholasticism was attacked by the visionaries. The whole agenda of scholasticism was reduced to reflections and debates on God, salvation and sin absolutely forgetting the nature and human life here on earth by mediocre elements interpreting commentaries on commentaries on Aristotle. The visionaries criticized the methodology, object of thought and proposed that there should be an emphasis on the study of nature and a new language should be developed in describing the world. They called for experimental evidence as the true methodology of acquiring and processing knowledge based on induction rather than the self evident axiomatic deductive methodology of Aristotle. They proved how Aristotle was wrong in many sense as he often made conclusions without basic investigations. They argued that mathematics as the new language of science and nature the object of its thought so that the dynamics of nature could be understood and thus humanity could control and manipulate nature facilitating human life. Galileo, Leonardo Da Vinci, Cardinal Nicholas of Cusa, Descartes, Francis Bacon, Thomas Hobbes were some of those intellectuals who proposed for a shift of emphasis from God to nature. Bacon criticised the tribal social culture as a stumbling block for human progress and advocated for the elimination of these faulty individual and social habits. Thus the idols of the tribe, cave, market place and theatre were criticised and caused a social restructuring that paved the way for the renewal of the society. Because of this theoretical input and the continuous emphasis on the elimination of the tribal outlook transformed the highly tribalised European society and paved for a universal outlook based on humanism and its rapid growth. This renaissance spirit separated theological reflections on God, soul and salvation from philosophical investigations on the nature. In modernity the rise of reason is visible and its ultimate ramification and refinement as scientific rationality is known as renaissance.

Cartesian doubt and search for the clear and distinct ideas proposed atomism as a methodology for the investigation of nature. He divided even human person as body and mind, the extended being and thinking being and called for an infinite division of material reality which paved rich dividends in humanity's search for its understanding and controlling of nature. The rapid growth of science and the rich facilities we are enjoying due to technology are because of this philosophical vision and shift of emphasis that caused a social upheaval. Most of these intellectuals who steered the modernity were strong believers and it is their faith that catapulted them to study nature as the handmaid of God and to discover His splendour and Majesty in nature. Kepler, Newton, La Place and other such intellectual giants extended the philosophical vision on nature into scientific practice and discovered the dynamics of nature and engineered gadgets facilitating life in an unforeseen way.

Immanuel Kant investigated on the power of reason and its limits introduced by scholasticism and emphasised by modernity. Kant divided the reality as noumena and phenomena and observed that reason could not penetrate noumena and it is beyond any rational investigation. However from the practical perspective, noumena behave as a regulating mechanism though the rationality could not get hold of it. This fragmentation of the reality into noumena and phenomena and the existence of the noumena as a mere regulating mechanism devoid of authentic ontic existence and the inability of the human mind to describe, understand and realize became the foundation for the gradual overthrow of the noumena itself. Science concerned only with the phenomena and the ontic search for the beyond as envisaged by Plato and Aristotle have been eliminated along with the reduction of the four causes of Aristotle into an efficient cause, a mere instrumentality rejecting the paramount purposiveness from the whole realm of metaphysical investigations. The ontic source as noumena and its connectivity with the phenomena and the ability of the human mind to understand, describe and reach out to it for meaning has been eroded. This euphoria about the ultimate power of human reason led science to deny any metaphysical reality beyond its experimental objectivity. Thus Laplace interpreted God as a mere hypothesis which has no place in the description of the world. Thus the dogmatism that choked the nascent science turned the other way around denying and dismissing faith and religion as useless jugglery empowered by the enormous success of science and technology and its megalomaniac expression known as scientism.

Kant also detached morality from religion and developed an ethics based on the autonomy of the conscience and an action oriented ethics founded on the categorical imperative eliminating the reward and punishment mechanisms integrated with religion offering either the heavenly bliss for the good actions and the hell fire for evil conduct. Though this detachment between religion and morality was proposed by Kant with a good intention, morality paved the way for ethics which ultimately guided by the utilitarian epicurean principles. Thus, euthanasia is promoted when someone is at pain, a foetus is aborted for the comfort of the mother, promoting the concept of controlling the body, surrogate motherhood, sperm-ova banks all leading to an ethics of convenience. Now instead of ethics the oft spoken phrase is corporate responsibility. Thus the evolutionary development of morality endowed with the connectivity to an ontic reality is eliminated catapulting it to ethics and finally to a mere responsibility devoid of a relatedness to a deeper dimension of reality.

The Newtonian physical laws and the law of gravity paved the way for a mechanical interpretation of the world rejecting the Aristotelian holistic outlook. The intellectual engine for the penetration of the dynamics of nature and the description of it in terms of physical laws were the Cartesian doubt and the Kantian fragmentation denying the human mind to reach out to its own ontic source. Knowing as merely determining the phenomena and engineering it became the sole interest of reason that catapulted a science of mechanism and determinism moulding the Western civilization into a philosophy of using, abusing, misusing and overusing the nature and leading to the present ecological catastrophe and resource crunch leading to again an investigation into the foundations of Western culture and science.

As the scientific rationality was making quantum leaps, the nature and human life suffered a setback. Nietzsche inaugurated the onslaught on the basic foundations of the Western culture by proclaiming the death of God. When Nietzsche cried aloud the death of God he intended that the inherited notions of God and the world views were not life promising and hence to be replaced by a human spirituality based on the will to power. Nietzsche was not criticising the Christian religion alone but even more savagely the foundations of the Western science itself. When religion said that God was eternal, science replaced it with the slogan that matter as eternal and thus both religion and science gave an impoverished image of man. Nietzsche charged that both science and religion utterly failed to

recognize the power inherent in the human and called for a radical renewal and rediscovery of human nature. He was introducing a Socratic criticism to the whole endeavour of knowledge. Religion and science according to him, instead of anchoring man at the centre of the life world misplaced him with God and matter erroneously and had done irreparable damage to the destiny of man as chaotic and indeterministic. Thus the rational foundations of the modernity based on the Cartesian doubt and the Kantian fragmentation was moved a step further by Nietzsche through the rejection of the ontic source, noumena or truth out rightly.

What Nietzsche inaugurated was augmented by Freud and Marx, the other two masters of suspicion. Freud interpreted the reality as mind while Marx as matter. Freud exposed the hidden dimensions of the mind and interpreted the vital human drive as sex and criticised religion as creating conflicts in the mind through its dogmatic insistence on the dos and don'ts. On the other hand Marx proposed that religion is opium keeping the social system intact without changes eliminating protests and interpreting the reality as physical, mundane and material rejecting all dimensions of transcendence. Continuing this tradition, science marched on enquiring the phenomena alone as the totality of reality and denied existence of any metaphysical entities as unobservable and hence non-existent. The success of the science and technology in describing and manipulating matter, life and mind in the twentieth century gave an euphoria to reject all dimensions of transcendence and any connectivity with a noumenal and ontic reality.

As we entered into the twenty first century, science and technology drove its fists against organised religion through the works such as *The God Delusion* by Dawkins, *the Grand Design* by Hawking etc. The accusation that religion is against science and it blocks every scientific progress and hence altogether stunts the progress of humanity is not a recent one. Vociferous criticisms and attacks against religion especially against the Catholic Church by the Communists all over the world, especially in India, and by philosophers like Daniel Dennet and by scientists like Richard Dawkins, and by writers like Anne Rice in the West have also become shriller these days.

### **8. The Necessity of a Holistic Approach**

Science presents itself, in each culture, as reason, as complimentary and corrective to the mystical and mythical world-picture. It aims at improving society with a new-world view eliminating superstitious beliefs and brings about a better understanding of the universe and life. It will also aim at

transforming that knowledge into technology to improve human life style. However, faith provides a meaning and purpose to the world-view created by science and science in turn becomes a corrective to the mythical world-view. As Jan Hilgevoord correctly observes, "the cosmology of the Old Testament is essentially mythical in character. The world is viewed as a three storied structure, with the earth in the centre, the heaven above and the underworld beneath. All this is the language of mythology, and the origin of the various themes can be easily traced ... To this extent the *kerygma* is incredible to modern man, for he is convinced that the mythical view of the world is obsolete."<sup>19</sup>

As we reflect about the future of philosophical and theological pursuits in the twenty first century, the rejected reason by Post-modernity is to be rehabilitated. Reason can be almost identified with that of contemporary science. Science is being revealed in the epoch making discoveries about nature. Along with the book of revelation, the book of nature is to be adequately studied. As Aristotle and Aquinas pioneered the way in developing a synthesis of reason and faith, by moving from physics to metaphysics and to theology is the best example of creating a theology. As seen, Aristotle could not explain the dynamics of the physical universe in terms of his physics alone and therefore he transcended it and found an adequate explanation in terms of metaphysics, the unmoved mover and the uncaused cause. Later, this metaphysics became the foundation for theology in interpreting Christian faith in terms of Aristotelian philosophical rational categories. Thus, both Aristotle and Aquinas have shown the best methodology for a holistic description of the totality of reality. Science is the explanation of the dynamics of the world in terms of physical categories proceeding through trial and error methods without the possibility of postulating a goal. Religion, on the other hand, is certain about the beginnings and the end of the universe as the transcendent reality called God, and explains with absolute determinism. Thus, science is the thesis, the other of metaphysics which is the anti-thesis and together synthesized and arose towards a religious faith to give an adequate synthesized holistic explanation for the universe and human beings with a complimentary transcendent outlook which science is devoid of and an empirical character which religion is deprived of.

Aristotelian metaphysics and the Thomistic philosophy and theology are based on a common sense view of the world, an almost 2000 years old

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<sup>19</sup>Jan Hilgevoord, *Physics and Our View of the World*, Cambridge: Cambridge University Press, 1994, 10.

world vision that prevailed in the medieval period. A logical encounter of science and theology did not happen due to the mutual suspicion and the initial hegemony of religion and the later arrogance of science. The common sense view of the world was eliminated and replaced by Galileo, Descartes, Kepler, Newton, Faraday, Maxwell and thousands of other scientists. This classical vision of nature was again refined by quantum mechanics and the theory of relativity in the twentieth century. Today in the twenty-first century, human genome project, nano-technology, genetic engineering, brain-mind, artificial intelligence, etc. are revolutionizing human conceptions about the universe and about human nature. As Pope John Paul II observed, in the beginning of the twentieth century science has given us great hope. However in the beginning of the twenty first century, because of the explosions in science and technology, instead of the silver lines of hope, the dark shades of horror is visible in the horizon, calling for a radical renewal of our vision of science and technology. The ecological crisis is alarming and even threatens human existence. The introduction of genetically modified food materials is transforming the genes of humanity and the rise of cancer and other uncontrollable diseases are an index of the defects of unbridled science and technology. It is religion that can make a meaningful critique of science with its transcendent approach and its role as a meaning giving mechanism. Religion could play the role of the Old Testament prophet who boldly critiques the society and the king when they derail from the expected path. Thus, if science, technology and theology can come together, giving a holistic outlook, it can solve many of the hard pressing problems of humanity. When this new scientific world vision is integrated into reformulated philosophy, which in turn transformed into theology, this synthesis will definitely become intellectually stimulating and will be in touch with the today's reality capable of tackling the unsolved problems arising out of the lack of value and meaning.

The whole enterprise of science was begun by the visionaries like Copernicus, Descartes, Galileo, Kepler, Newton who were very devout Christians and they conducted their research in service of God and as a search to find Him through the creation. They developed the science on a prayerful reflection and placing their hope on a transcendent God and discovered him through the patterns and regularities inscribed in nature. However, gradually, the underpinning religious experience as the starting point for science was eclipsed and replaced with a secular agenda of eliminating this experience itself and even denying its source. Thus the

scientific enterprise became a self enclosed closure, rejecting the actuality and possibility of the transcendental cause, catapulting to a crisis of truth. This crisis of truth, fed into a crisis of faith which in turn led to the crisis of culture, fragmentation and alienation, which was detected by philosophers like Husserl, Heidegger, etc., though they found different causes. Thus, this crisis has risen to an alarming rate in the twenty first century, and only by a reclaim of truth this crisis can be resolved. Therefore, it is high time that the two bipolar opposites, science and religion, should come together and could resolve this crisis, by developing a new culture of holism and a dynamics of integration.

Therefore, in order to develop a new culture of hope, it is necessary for the religion to encounter the physical and the natural sciences in the model of Aristotelian-Aquinas synthesis, so that the perennial problems of humanity could be resolved. Science as the life facilitating mechanism and theology as meaning giving mechanism could interact with each other fruitfully and work together for progress and prosperity. The problems of today – fragmentation, isolation, crisis of truth, faith and culture – could be eliminated through the fruitful dialogue among science and theology so that a culture of hope and prosperity can be created. Let us look into the possibilities of such an interaction by pinpointing certain areas of development from the physical, biological and neural sciences that explode us with their revolutionary discoveries and conceptual implications.

### **9. Human Vocation: Co-Creator Making Matter-Life-Mind a Continuum**

At this concluding point, let us reflect about what is common among physical matter, viruses, bacteria, plants, animals and human beings? It is difficult to assume that such diverse living things as matter, viruses and human beings have anything in common! The basic building block of the universe, the question that was asked by Thales and Kanada is now discovered by particle physics as quarks. Irrespective of matter, life, brain, they are all constructed on six quarks; namely, up, down, charm, strange, truth and beauty. The theory of relativity, which celebrated its centenary, taught us that matter and space-time are a continuum and gravity is the curvature of the space-time. From an energy soup, the big bang expanded from Plank's time – 13.7 billion years ago, formed into granules of energy, quarks, particles, massive bodies like earth, sun, solar systems, galaxies and galactic clusters and all are inextricably interwoven. The universe is bound; yet unbound. Matter curves the space-time and hence bound; the matter is expanding and hence unbound.

To our surprise, microbiology, biochemistry and genetics now vividly show that life, irrespective of virus or human being are all inextricably interrelated, sharing the same DNA. In the beginning, amino acids were formed which evolved into Ribo Nucleic Acid; then through billions of years of its evolution, bacteria, fungi, plants, worms, fishes, dinosaurs, apes and ultimately humans emerged out of it. It was an evolution though undertaken by nature, guided by the providence of God. When the universe was 10 billion years old, the RNA could grow larger in size; it would disintegrate and form again. Through trial and error, a new form of RNA, a streamlined RNA – Dioxy Ribo Nucleic Acid, DNA was formed. In order to be assembled faster, three letters of DNA combined together with a tag for easy recognition. These tags combined together to form amino acids and later they joined together to make genes and they in turn form chromosomes and ultimately stored its genetic code in DNA. These interconnections are still visible in cells. The three letter genetic code is universally found in every creature. CGA-arginine and GCG-alanine are in bats, trees, humans and in beetles. All life is thus inextricably interwoven, mosquito, mouse, pig, cow, gorilla, chimp, man are all belonging to the same biological family, are distant or close cousins, a biological continuum. Recent discoveries in the book of life prove this simple fact that the history of the struggles of life is enshrined in our cell and life forms, irrespective of whether viruses, bacteria, plants, animals or human beings, are all inextricably interwoven. All life forms share the same genetic materials and evolved from the simple to the complex. The recent studies in genetics reveal the intimate facts of life as well the mysteries of its evolution integrating the Mendelian Genetics and Darwinian evolution into a systematic synthesis.

Cognitive science, a bundle of research disciplines, namely, Neurophysiology, Computer Science, Artificial Intelligence, Philosophy of Mind, Linguistic Philosophy, Sociology, Psychology, Computer Science, Mathematics, Philosophy, Physics and Chemistry now looks on the subtle relationship between brain, mind and spirit and working hard to mimic the brain processes to create intelligent behaviour and to understand the mystical experience. An inextricable connection is discovered among, brain, mind and the spiritual experiences.

Now nanotechnology, neurotechnology, biotechnology, information technology are coming together to diminish the inter phase between matter, life and mind. Life is absolutely an information system. The Human Genome sequencing and biotechnology elucidate that life is run by



the information in DNA and controlled by the genes inside it. Information technology is developing artificial intelligence using nano chips that could be implanted in the human body. These new technologies are the tools for continuing the creation and making it a continuum. The Supreme Intelligence guides the natural forces to evolve into a continuum and the human vocation is to discover it and enhance it. Reason will definitely discover its own limits as Kant has already observed and has to be complemented by faith as Teilhard de Chardin proposed through his illustrious vision.

Thus as quantum relativistic cosmology points out, the evolution of the universe began from a tiny atom, a quantum singularity and it evolved materially through quarks, atoms, elements, gas clouds, galaxies and galactic clusters. Then at a critical threshold, life began in this universe and through an evolutionary process developed into numerous life forms culminating into human life. As life progressed, mind evolved and the complex mental life culminated in the human brain giving him the extraordinary development of consciousness. Thus the universe evolved physically, lively and spiritually and incorporating the evolutionary vision of Lemaitre, Darwin, Mendel and the theological vision of Chardin, the universe began from quantum singularity evolved and collapsed into the Cosmic Singularity, a Superconsciousness, which is indeed divine and incorporates, matter, life, mind and the divine. However, the evolution that happened naturally through billions of years will be now taken over by the creativity of the human consciousness, filling up the blanks and accelerating the move towards creating a continuum. The goal of this evolution and the why of its dynamics are beyond the grasp of science and has to be supplied by metaphysics and religion as envisaged by Chardin, moving towards a Super-consciousness, charting a trajectory from quantum holism towards a cosmic holism integrating science and religion into a holistic union making humans co-creators.

## 10. Conclusion

In this Science and Religion issue of the *Journal of Dharma*, the first article introduces the intricacies of the science and religion dialogue in general. A French scientist who became a Buddhist monk critiques the Western notions of science and asks for the development of a contemplative science. The crisis of the contemporary culture according to some philosophers is due to the over emphasis of science and technology. Connecting these two facts, I argue that the Kantian fragmentation and the

Cartesian dualism as the root cause that eliminated the ontic concept of truth and led to the scientific understanding of the reality as the only criterion for knowledge and life. An integrated approach of science and religion provides a holistic account of the reality and the human vocation is to be co-creators with God. Archbishop Filipe Neri Ferrao of Goa describes the evolutionary stages of science in which religion has played a conspicuous role. Archbishop Ferrao was delivering his inaugural address for the international conference on science and religion in which he argues the complementary nature of science and religion and invokes both the adherents to come together to solve the problems of humanity. Dr. Victor Ferrao in his article on the contemporary cosmology in dialogue with Christianity illustrates the various conceptions of the universe beginning with the geocentric towards the multiple universes, elucidates the expansion of our knowledge about the infinite universe which almost becoming like a theological speculation. Dominador Bombongan Jr. examines the ecofeminist theology of Rosemary Radford Ruether. The twin domination of nature and woman in the human history is analysed by Ruether showing how through the dualistic epistemological advances how it became the prominent paradigm and proposes an alternative 'God and Gaia' approach to counter this domination. Dennis Vanden Auweele through the article 'God of Gaps' narrates how this approach describes both God and religious practices in a negative way and tries to develop a positive approach. Noreen Herzfeld critically evaluates the cyber man who is living in the cyber space engaging himself or herself in video games, facebook and other activities and his or her image of God. It is an interesting examination of living in the virtual world and issues the web life generates again eliminating the image and experience of God from the life of the human person. Thus, these experiential and in depth articles in this issue of *the Journal of Dharma* on "Science and Religion" gives a historical account of the conflicts between science and religion, broadens the epistemological horizon of the reader and calls for an integrative approach to resolve the imminent problems facing humanity.