

Feature Article



Science and Mysticism: Characteristic Features and Reconciliation

Gopal Chandra Bhar[†]

Abstract

The article tries to cover an elaborate analysis on widely discussed relations between science and mysticism. Similarities, dissimilarities and possible reconciliation have been pointed out both scientifically and philosophically. One cannot go without the other for perfection as rightly Einstein asserted, but morality forms the cornerstone for mysticism as causality is the basic guidance of scientific endeavour.

Keywords: Science and mysticism, Philosophy of Quantum Physics, Religion and science, Transcendence and immanence, Wisdom.

Introduction to Knowledge

Swami Vivekananda on his lecture in **Religion and Science** [1] said “*Experience is the only source of knowledge. In the world, religion is the only science where there is no surety, because it is not taught as a science of experience. This should not be. There is always, however, a small group of men who teach religion from experience. They are called mystics, and these mystics in every religion speak the same tongue and teach the same truth. This is the real science of religion. As mathematics in every part of the world does not differ, so the mystics do not differ. They are all similarly constituted and similarly situated. Their experience is the same; and this becomes law*”.

Arthur Stanley Eddington expressed in his book **Science and the Unseen World** [2]; “*We have learnt that the exploration of the external world by the methods of physical science leads not to a concrete reality but to a shadow*

world of symbols, beneath which those methods are unadapted for penetrating.... Physics most strongly insists that its methods do not penetrate behind the symbolism. Surely then that mental and spiritual nature of ourselves, known in our minds by an intimate contact transcending the methods of physics, supplies just that... which science is admittedly unable to give.” We would lose all interest in our life if we were to contend with matters of fact. Science honestly seeks to unearth the nature of external reality boldly with reasons and refrain from all touches of wishful thinking. The science is not sensitive to our sentiments and needs. Elsewhere he added “*science gives us knowledge of structural form and not knowledge of content*” and also “*Life would be stunted and narrow if we could feel no significance in the world around us beyond that which can be weighed or measured with the tools of physicist*”. He arrived at such a conclusion ‘*physical science does not constitute the*

[†] Ramakrishna Mission Vivekananda University, Belur Math, Howrah-711202, West Bengal.

Email: bhar.gopal@gmail.com

ORCID: Gopal Chandra Bhar: <https://orcid.org/0000-0003-1474-2593>

whole world of knowledge' after putting up his wonderful analogy of catching fishes of various kinds from a lake by a net through improving its holes smaller and smaller. He continued "We can scarcely describe the beauty of a landscape as non-existent when there is no conscious being to witness it; but it is through **consciousness** that we can attribute a meaning to it. And so it is with the actuality of the world. If actuality means 'known to mind' then it is a purely subjective character of the world; to make it objective we must substitute 'knowable to mind'. We study objects as NON-SELF in physical science through its different branches, but what about the subject SELF, the observer that observes? Modern science unveiled the mystery on the object to the **extent** its inherent properties manifested, any other inherent may manifest under appropriate condition, but not in the mystery of the subject. So **Bertrand Russell [3]** observed in his **Mysticism and Logic** "METAPHYSICS, or the attempt to conceive the world as a whole by means of thought has been developed, from the first, by the union and conflict of two very different human impulses, the one urging men towards mysticism, the other urging them towards science. Some men have achieved greatness through one of these impulses alone, others through the other alone: in **Hume**, for example, the scientific impulse reigns quite unchecked, while in **Blake** a strong hostility to science co-exists with profound mystic insight. But the greatest men who have been philosophers have felt the need both of science and of mysticism; the attempt to harmonise the two was what made their life, and what always must, for all its arduous uncertainty, make philosophy, to some minds, a greater thing than either science or religion."

Swami Vivekananda said our education is meant for bringing out perfection which is already within man. But our existing system of education does not bring that out. As for example, the mere reading of history is not enough, the lessons of history boast of heraldry, pomp of power etc., meaning the philosophical and psychological aspects is needed to be assimilated, if one be on the road of perfection. Accumulation of too much information does not help us to face life and react to circumstances in the right way. The prime need is to develop an attitude, the bent of **mind**

to put the studied lessons into action in real life affairs. But "*personalities are not **formed** by what is heard and said, but by labour and activity*" as asserted by **Albert Einstein**. Furthermore we learn so many things piece by piece but cannot contemplate things in their **integrity** as a result the essence slips through our fingers so there is no assimilation of knowledge i.e. it does not go into our innermost core. Furthermore, the very scientific method apparently creates obstruction between **the subject and the object**. Consciousness is associated with our mind which with spirit reveals the value of working of the **mind**. The modern science helps us in examining the phenomena through sharpened **rational mind** while mystic does that through our **intuitive mind**. The latter specialisation includes in-depth, holistic and integration of mind as Vedanta elaborates. But in case of science the specialisation is fragmented. So there comes the well-known quote of philosopher- scientist **Fritjof Capra [4]** in his *The Tao of Physics* "*I see science and mysticism as two complementary manifestation of human **mind**, its rational and intuitive faculties*". The regime of mysticism is beyond the laws of nature, not veiled by science through logic of intellect and so the law of **causality** does not apply there. Normally in **deductive** logic we come to a particular conclusion from a general while in **inductive** logic we can arrive at principles from facts. Logic is applicable to this gross world of relative **experience** if there are differences. But this logic of determinacy is broken down in the twentieth-century modern physics in dealing with subtle particles of sub-atomic world and takes up the indeterminacy principle of **Heisenberg**.

This intellect clears the mental roadway for transcending the lower realm of mind whereby own feelings and emotion come resulting in experience. **The domain of intellect** determines this experience. For animals hunger and thirst form their intellect domain. Whatever they know do not see or express. In human this domain is much wider. Whatever they know say and express even the future to a certain extent. Moreover the human race eternally aspires ethics and aesthetics, religion and poetry which probe into the subject and satisfy its objective needs. In mystic experience we are translated to a plane

of being where the veils that divide subject and object, the knower from the known are lifted. They will never be obsolescent, since subject is the primary reality, not object. This is similar to transformation of Physics levels from Aristotelian to Newton to Quantum while the mysticism is concerned with rise in consciousness from the senses, to the human mind, and finally to the soul. Mysticism enables plainly the capacity of man to raise him through sustained efforts to a plane of consciousness **where the mind is freed from all desires and cravings**. Great seers arrive at intuitive truths in a superconscious state above reason. Human **reason** usually egoistic and secularistic in outlook cannot go beyond to reach the ethics of enlightened self-interest. To arrive at that one is required to undergo through necessary disciplines to develop this supernatural vision. One can attain the supreme state in yoga through sincere practice of meditations. Man's moral evolution is not a natural process. In the Vedic culture righteousness is considered as the essential prerequisite for secular wellbeing as well as for spiritual attainment. Moral judgement requires some inner development which is not possible without the practice of righteousness. Rites and duties are preparatory to spiritual knowledge since they purify and quieten mind. Swami Vivekananda [5] confirmed in his Dhyana and Samadhi of Raj yoga lecture: *"The Yogi teaches that the mind itself has a higher state of existence, beyond reason, a superconscious state, and when the mind gets to that higher state, then this knowledge, beyond reasoning, comes to man. Metaphysical and transcendental knowledge comes to that man. This state of going **beyond reason**, transcending ordinary human nature, may sometimes come by chance to a man who does not understand its science; he, as it were, stumbles upon it"*.

Characteristics and Limitations of Science

Our **life** is guided by the world of **facts** and **values**. Science judges the observed **facts** through senses and sensors, but the values are guided by our motivation: the former is the regime of brain while the latter the regime of **heart**. The science cannot provide man with **motivation**. The science of **reason** can at best clarify the involved issues and experiences within a limited boundary,

but not on **motivation**. It should come from elsewhere. *"We are no better than a worm. Without a definite purpose, even the dullest among men will not do a thing."* said great ancient philosopher Shankaracharya. But human being has a natural tendency to seek unlimited in the limited, perfect in the imperfect, permanent in the impermanent. *"**Perfection** is one thing and **enjoyment** another; these two having different ends, engage men differently. He who chooses perfection becomes pure. He who chooses enjoyment misses his true end. Both perfection and enjoyment present themselves to man; the wise man having examined both distinguishes one from the other"* as explained by Swami Vivekananda in his commentary on Kathopnishad in the context on clarification of *sreya*, the **perfection** from *preya*, the **enjoyment**. The scientific endeavour provides us with means of overcoming impediments in life making us to live the life more comfortable including opening up varieties of avenues of amusements. All the avenues of science are working for this one end to bring happiness to humanity. This so-called the High tech of science is not the hallmark of progress in **civilisation**. Man discovered many laws of the external nature, fly in the air, dive through water, knows working of the minute particles as well as of distant stars, but strangely enough does not know himself the laws governing his **own inner nature**. Conventional science is in vain in changing **human nature** since man is neither a machine nor just an animal. Man's inventive brain does not guide the future course of human civilization on its own terms, but it is the **wisdom** that really controls and that is the outcome of the intuitive and conscious mind. *"Unless men increase in wisdom as much as in knowledge, increase in knowledge will be increase in sorrow"* said Bertrand Russell in his book *Impacts of Science on Society*. Real life begins with values that are derived not from pleasures but from wisdom. The science has given more power in the hands of man but he is not morally or ethically equipped for practical use at times of real need. The progress or goodness of human depends on moral goodness of human beings. Our scriptures encourage knowledge of that science for crossing death which leads us to immortality.

Conventional science may be termed as a **partial** science, since it is only restricted to

sensing the appearances of things and not any reality behind the appearances. There can be several partial scientific views of the external world as determined by our limited senses and the sensing instruments. Behind the observable universe there can be unobservable universe and the observer as well. The revealed facts by the limited senses and the sensory instruments hint out realities behind and control. The fragmentary and reductionist approach of this so called Western science leaves out several important aspects of the infinite existential reality. These are specially dealt with Vedanta, taking an **integral view** of all aspects of the infinite existential reality, both the external and internal aspects of experience and investigates the nature of both the knower and the known, the subject and the object, and the nature and meaning of knowledge itself. So the science, as we practice it, is limited by the tools and also by the means of the practitioner. It is reductionist knowledge; it pricks personality into pieces unable to contemplate things in their **integrity**. They lead us into the endless spatial and temporal opened up to our view as conditioned by our senses. So we learn so many things piece by piece unable to contemplate things in their **integrity**. Bhagavad Gita (13.2-6) [6] points out the need of this integrated knowledge comprising the outer and inner fields, *khestra* and *khetragna* for full-fledged development. The external field of the universe as an object *khestra*, and our internal field of subjective experience, *khetragna* or the Spirit within, which is the real knower and experience forms the true and complete knowledge. Yoga is the technique by which this inner nature can be perfected quickly as we hasten growth of plants through artificial means; otherwise left in the hand of nature would take generation after generation. So Swamiji stressed perfection of the means over and over again. We are the means. Further the science of **reason** is **neutral**. To use certain result of science for welfare or destructive purpose is the regime of religion.

Moreover the range of reason, being conscious working of the **mind** is narrow and limited. Reasoning is based upon certain perception. If the perceived **fact** is not there, reasoning is useless. **Reason** also fails to unveil what is beyond it. “*There is a little **circle** within which*

*human reason must move. It cannot go beyond. Every attempt to go beyond is impossible, yet it is beyond this **circle** of reason that there lies all that humanity holds most dear,*” said Swami Vivekananda [7]. He continued “*all our ethical theories, all our moral attitudes, all that is good and great in human nature, have moulded upon answers that have come from beyond the **circle**,*”

How man’s life be guided by values is ascertained through our second knowledge organ the heart. The glories of life are hidden below the surface. Life is a ceaseless process of choice and discrimination for human being. Intellect can make a clever animal. Intellectual use of sense organs can give dominance of human over other animals, but cannot take one far, unable to solve all problems of life, often requires insight and motivation through spirituality. **Motivation** can change one’s whole **life** and entire outlook. Science cannot create in us motivation for reaching a goal. Means for reaching goal can be motivated by religion, directly or indirectly. Two great quotes are relevant in the context. “*Science can tell him how certain ends might be reached. What it cannot tell him is that he should pursue one end rather than the other*” said Bertrand Russell [8]. Albert Einstein in his book **Out of My Later Years** [9] commented scientific method can teach us nothing beyond how facts are related to and conditioned by each other. ‘*Science without religion is lame religion without science is blind*’, which means to point out science gives us power while religion gives us the vision. We do not need blind power.

Moreover, the intellect is subjected to the pressure of inherent ego, the individual self, if a man is not wide awake and not keeps vigilance over intellect the wrong pull of the ego may divert from the real route. Hence there occur frequent reports of scientific **plagiarism**. It must be mentioned that it is not this limitations but controlling the power of sense organs that upheld the dignity of human being and thereby lies the scope of motivation one to **idealism**.

These tremendous contradictions in our intellect, in our knowledge, yea, in all the facts of our life face us from all sides. As we increase our power to be happy, we also increase our power to suffer, and sometimes one is inclined to think that if one increases power to become happy in

arithmetical progression, the power to become miserable increases in geometrical progression. We who are progressing know that the more we progress, the more avenues are opened to pain as well as to pleasure. It is impossible to answer this, because the question cannot be logically formulated.

A. Some Distinctive Features of Mysticism

Mysticism as a word or concept is impossible to define because it is, by nature, linked to spirituality, to mystery, to subjective experience. Mysticism concerns spiritual experience. So it can never adequately be put into words. The 'Mystery' in the religious sense means totally transcending the conceptual understanding. The sole aim or goal has been to break the shell of our own little being and blend in perfect union with the All, the One. It follows that mystical consciousness is the rising from the egoistic individualism to spiritual universalism. So it is a wrong belief that a spiritually-minded person is so much a loss to earthly interests and worldly concerns. It is essentially the unconceptualisable intuitive experience of, i.e., the direct union with the supreme Reality. It is a development of inward faculty; it is restless quest of the finite for union with the infinite. There have been mystics throughout the ages who have attained mystical enlightenment while living in the body. For that one has to give up reason and turn to intuition. Intuition does not inquire; it sees and feels with great fervour while intellect rerelessly inquires. It gives values and vision. Intuition is mainly of two kinds: (1) Imaginative Intuition and, (2) Introvertive Intuition. Both these are non-sensuous. Intuition is *aparokhanubhuti*. Intellectual perception implies the identity of the knower and the known. When **there is complete identity, the perception is an intuitive one**. Swamiji said in Jyan yoga "*all argument and reasoning must be based upon certain perceptions. Without these there cannot be any argument*". A mystic is a person who has himself attained the incommunicable experience of mystic union in greater or lesser degree and not one who speculates and philosophises about it. As soon as the mystic has attained mystical consciousness, his individuality (*jivatvam*) ceases.

The human being is of a trichotomies nature: body, mind and spirit. **Philokalia**, an Anthology

of the Inner Life and Experience [10] says "*Body knows through the senses, mind knows through intellect and spirit knows through mystical perception*". Philosophers maintain man is **not** body plus mind but an *integrated* body-mind. The spirit is the motive power of action needing the body for manifestation of mental powers. As a result the possibilities become vast by this integration. Our **life** becomes deformed and disabled by the loss of this integration or more specifically lack of **coordination**. This is guided by the principles of harmony and renunciation as elaborated in in Rikh Veda Purusaha sukta and Sangam sukta. Swami Vivekananda [11] said in Inspired Talks when this body-mind complex is active the **Atman/Spirit** is inactive, while this body-mind is made inactive, as is done willfully during meditation, the **Atman/spirit** becomes active. Spiritual life is a life in the spirit. Mysticism is a spiritual journey anyone can begin, but few will complete in this life. Every objective worth attaining in life does require some sacrifices and considerable effort. This greatest achievement in life, actualizing divine unity, necessitates a huge sacrifice that is of giving up of our ego, **renunciation** in spiritual terms. Mahanarayana Upanishad says

*na karmana na prajaya dhanena tyagenaike,
amritatva manushuh*

Neither by action nor by progeny nor by wealth but by renunciation alone has one attained immortality (or Self-knowledge). The idea is that Self-knowledge or Immortality is not created by anything (action or wealth or children). The central theme of Bhagvad Gita is in this direction: *sangam tyaktva, mukta sanga* and **renunciation**. Books on mysticism may speak of transcendence and immanence. Any craving for flesh is totally foreign to such a life. Life cannot be divided into compartments spiritual and non-spiritual. Life is one, and is either spiritual or non-spiritual.

The super-conscious state of mysticism cannot be fully expressed in words. It is beyond any description, often the language of **silence** is the proper mode of expression. All great men throughout the ages stressed the need of lone and be in solitude. Scripture says such a state is beyond the reach of words and mind:

Abang-manasa-gocharam. It is the only thing in the universe that has not been defiled. The noetic quality ensures its **inaccessibility** by our discursive and analytic mind. The experience cannot be sustained for long but leaves a lasting impression, bringing about an irreversible transformation of the person's character. Passivity is attendant upon mystical experience since the will of the individual is lost for the time being. Thus the experience is beyond thought and speech, it cannot be explained in logical terms, says Taittiriya Upanishad 3.4.1:

Yato vaco nivartante aprapya manasa saha.

Kenopanishad says I.3-4:

अविज्ञातं विज्ञानतां विज्ञातमविज्ञानताम् ॥

It is different from that what is known and also beyond what is unknown. The noetic quality provides an insight into deep truth not accessible to analytic and discursive mind. The deepest truths of spiritual perception are unutterable. **Yajurveda** Ch.80 says 'For the finite, the man of many words, but for the infinite the mute'. It is associated with passivity since individuality is lost in universality.

Euclid, the father of geometry while training the king of Alexandria "In the country there are two kinds of roads-the hard road for the common people and the easy road for the royal family. But in geometry all must go the same way. There is no royal road to learning". What Euclid said about geometry is very much true for spirituality; there is no short-cut route. It is a life-long affair as stated in Patanjali **Yoga-sutra** I.14 [12]:

स तु दीर्घकालनैरन्तर्यसत्कारासेवितो दृढभूमिः
*sa tu dīrghakāla nairantarya
satkāra āsevitah dṛḍhabhūmih*

It is required to be attended to for a long-time, without interruption, and with extreme devotion. A thorough disciplining the body and mind is considered essential for practice of yoga surging out all passions of mind as a precondition of yoga. Shankaracharya added in his Vivekchuramoni as one's hunger and thirst is alleviated by oneself only, it cannot be done by somebody else through proxy, so is the necessity for personal exertion in spiritual matters.

Opinions from some renowned Philosophers

The renowned early writer Radhakamal Mukherjee [13] writes in the book *Theory and Art of Mysticism* "For the ignorant God is fetish, image or ritual; for the wise God is mysterious God is the sweet coy maiden of love and beauty. For the worldly God is the consecration of the flesh, and the art and ritual of the satisfaction of desires. For the leaders of men, God is the supreme embodiment of renunciation and self-sacrifice. For the aged God is the All and the Alone".

Radhakrishnan [14] in his book *An Idealist View of Life* defined mysticism as:

"It is a condition of consciousness in which feelings are fused, ideas melt into one another, boundaries are broken, and ordinary distinctions transcended. Past and present fade away into a sense of timeless being. Consciousness and being are not different from each other. In this fullness of felt life and freedom, the distinction of the knower and known disappears. The privacy of the individual self is broken into and invaded by a universal self which the individual feels as his own. The experience itself is felt to be sufficient and complete. It does not come in fragmentary or truncated form demanding completion by something else. It does not look beyond itself for meaning or validity."

William James [15], the noted philosopher in his book *The Varieties of Religious Experience* identified four hallmarks of mystical experience; ineffability, noetic quality, transiency, and passivity.

One mystic philosopher Gopi Krishna [16] said in his book *The Real Nature of Mystical Experience* 'Beauty, charm, melody, rapture, harmony, lovely landscapes, gorgeous scenes, awe-evoking, grand spectacles of nature, inspiring works of art, enchanting sights, sublime thoughts, moments of utter peace, prayerful moods, bubbling joy, transporting lights and pleasant odors are all, in truth, distant samples of the Supreme Experience. They all combined provide a faint foretaste of the entrancing Vision'.

B. Mystical Ascent through Art, Music and Poetry

Everything in the nature has a meaning, so also the life has meaning under all circumstances. But we make our life constrained by desires. Our

deeper convictions and emotions can be centred on various perceptions scenes and satisfactions, so the turn of our thought-patterns can be endless. Art, music, poetry, sculpture and painting are aesthetic experience having the power of sublimating and integrating the mind. The tendency to get inspired with profound mystic ideas from external nature is deep-rooted in philosophers and sages, the poets are no exceptions, even though the bliss of religious mysticism and the joy of poetry are different. *“A few people are capable of reaching great spiritual heights. But a few are given the chance to attain human greatness even through their apparent worldly failure and death... one could make a victory of those experiences, turning life into an inner triumph, or one could ignore the challenge and simply vegetate, as did a majority of the prisoners (in German Concentration Camp)”* was the conviction of Viktor Frankl [17], the great Viennese psychologist of the last century said in his famous book *Man’s Search for Meaning* during his captivity in Nazi’s concentration camp.

Artists and Poets take the beauty of Mother Nature as outer stimulus to get up in spiritual heights, even though instantly without any so-called formal preparations. A piece of wood or stone is too ignorable for any service but the experienced eye of an artist with his simple instrument can give that a figure memorable. The insentient matter contained within such exquisite possibilities waiting only delicate touch of expert’s hand for bringing them out. It is in this ‘eye’ one can find magnificent temples in the field of architecture and sculpture in ancient India. Sculptors throughout history have shaped marble, bronze, wood, and other materials into incredible forms to understand culture and society, symbolic renderings of ethical principles. The insentient matter contained within such exquisite possibilities waiting only delicate touch of expert’s hand for bringing them out. **Painting** also gives the same stimulus as the indwelling God Himself is the supreme painter. It is in this ‘eye’ one can find magnificent temples in the field of architecture and sculpture throughout ancient India. In India the value of art, sculpture and devotional music has a great appeal.

While religion seeks with disciplined mind cultivating mystic consciousness through cleaning

the glass of mind, the poetry however remains undisciplined soaring in the sky suddenly as it sinks in the sea, so the mood of the poet are short-lasting; the mystic glimpses in poetry are accidental, uncertain and momentary. Poets normally take nature as their medium of expression of ineffable and their feeling is expressed in poetry. The poet has deep longings with vague vision. The moods of the poet are short-lasting, ‘evanescent visitations of thought and feeling’ in words of Shelley. While in the real mystic the longings have ripened into fulfillment. While Kalidasa’s poetic faculty mostly plays in sensual imports, Sri Shankaracharyya’s extends to the furthest extreme of super-sensuous regime comprising both the *sauma* and *bikara* aspects of divine in nature as spiritual inspiration in life.

But there are some radical differences between an artist and a seer far greater than that between an ordinary man and a gifted artistic genius. Mystic experience is direct through contemplation not through a medium. The artist depends for his glimpse on a sensuous content though the capacity for art appreciation which differs good deal from man to man due to culture and refinement of the subject itself. The direct vision is determined by how the personality is purified including through moral training. Mystic vision works out a complete transformation of his personality. The mystic’s whole outlook is changed due to this transformation. He becomes an instrument in the hands of divine. He can no longer behave as other people do. He is always conscious of the spiritual principle working in all the world affairs. But no such transformation is observed in the life of mere artists or poets. When he descends from the plane is driven by the same egoist and selfish desires as before even though he was aware of the spiritual principle momentarily, though artistic emotion brings to our heart the call of the eternal.

Wordsworth’s heart jumps up with joy when he beholds a rainbow, and his intense emotional delight has no kinship of sensuous origin. Poetry is the language of transitional stage of man’s passing from a grosser state of being into a subtler and a higher. But the work of composition begins when feelings begun to cool as expressed by Shelley [18] [19] in his *Defence of Poetry* ‘When

composition begins, inspiration is already on the decline, and the most glorious poetry that has ever been communicated to the world is probably a feeble shadow of the original conceptions of the poet'. Mystic mood is often strangely sweet 'When pleasant thoughts bring sad thoughts to the mind' said Wordsworth. It is because of this quality Shelley said 'Our sweetest songs are those that tell of saddest thought'. Very sensitive souls are affected by this sadness. Sri Ramakrishna was so sad with the demise of his nephew. Many of the finest and appealing poetry and song have this sadness theme. In Bengali literature there are many examples in the writings of Bengali mystic poets Atul Prasad Sen, Rajani Kanta Sen, Nazrul Islam and even Tagore. The Vedic poets regarded their poetry as *mantras*, they were vehicle of their own realization, and could become vehicles for realizations for others- said Sri Aurobinda. Some English poets like Wordsworth, Shelley, Blake, and Coleridge approximate to Sri Shankara's advaitic ideal highlighted the calm and beneficial aspects of nature as salutary to spiritual progress and happiness. Shelley believed in a Soul of the Universe, a Spirit in which all things live and move and have their being; which, as one feels in the *Prometheus*, is unnameable, inconceivable even to man, for "the deep truth is imageless." His most passionate desire was not, as was Browning's, for an increased and ennobled individuality, but for the mystical fusion of his own personality with this Spirit, this object of his worship and adoration. To Shelley, death itself was but the rending of a veil which would admit us to the full vision of the ideal, which alone is true life. The sense of unity in all things is most strongly felt in *Adonais*, where Shelley's matures thought and philosophy are to be found; and indeed the mystical fervour in this poem, especially towards the end, is greater than anywhere else in his writings. The *Hymn to Intellectual Beauty* is in some ways Shelley's clearest and most obvious expression of his devotion to the Spirit of Ideal Beauty, its reality to him, and his vow of dedication to its service.

Spirituality is associated with this sensitivity. Divine despair comes to them if intense and prolonged. Expression itself cannot carry one far into the region where the feeling was there at its

height. Genuine mystical experience occurs only to few practicing for years but in case of some poets and writers mysticism occurs spontaneously as a flash of illumination. Alternatively similar transient state may be acquired by birth, drug, manta, tapah, etc as described in *kaivalya pada* of Patanjali yogasutra 4.1. [12]

जन्मौषधिमन्त्रतपःसमाधिजाः सिद्धयः
janma auṣadhi mantra tapaḥ samādhijāḥ siddhayaḥ

The outer stimulus that is said to evoke true creativeness as well in poets and artists as mere rendering is a supernatural one. Most frequently it is stated to be the beauty of nature. Manifestation of the beauty of God; it represents the divinely perfect and the divinely ideal, Mother Nature. But the bliss of religious mysticism and the joy of poetry are different, in degree and not in kind. Imagination soaked in emotion is the common mother of both. Chaitanya when he beholds a dark cloud in the sky is reminded of the dark-complexioned Krishna, the living more than spiritual image of beauty and bliss, his lover and his all, and falls into ecstasy, unconscious of outer existence, and tears of love in the eyes. His ineffable mystic bliss, again has no connection with pleasure, but it marks, as it were, the culmination of poetic joy. The poet, while he touches the enchanting fringe of the super-sensuous, has his feet still planted on the earth. The mystic is lifted up and transported to the temple of the Spiritual as often happen to Sri Ramakrishna.

C. Varieties of Mystical experience

Mystical experience is spontaneous experience, not attained through the agency of the senses or through intellectual speculation, but through transcending the limitations and inadequacies of the intellect.

Mysticism is beyond all feelings, emotions, and ecstasies. Religious experiences can be different, but not identical. They do not contradict. It is unique, individual and subjective. Indian sages have tried to prove, not that all mystics have identical experiences, but that their experiences have identical value. The path by which one can expect to get mystical experience is called yoga in Hinduism. The mind itself constituted the

laboratory. One of the important characteristics of human mind is the sense of beyond, the urge to transcend limitations of space and time, thought and feeling. This beyond is of possible human relations and so of ethical values, philosophical implication, purpose and spiritual revelation. One cannot serve both God and Mammon together. Men that seek the higher have to detach themselves from the lower. Jesus retired into the solitude of the desert, Muhammad spent a long time in the mountain, and Buddha sat under Bodhi tree with firm determination. The founder of each religion had supersensuous experiences. Buddhist Arahants, Christian mystics, Sufi fakirs, and a hosts of Hindu mystics Shankara, Ramanuja, Nanak, Chaitanya, Mirabhai, Tulsidas including Sri Ramakrishna and Vivekananda of modern age. Jew believes God revealing Himself to a favoured few. India has verily been a laboratory of man-God relationship, Jasoda, Krishna, Gopi, Hanuman etc. Directly or indirectly, we have to try to assert our essential relationship with the Divine within, since our identity centred in our mind is predominantly in ego consciousness. It is because India has been in the field for a long long time of numerous approaches to and several realizations of God that the very air here is surcharged with a religious content. The Indian environment is in consequence is considered to be very helpful to sincere spiritual aspirants.

All mystics only report, and have no time to interpret. While Mira bursts out into a song, and an Introverted one refrains from speaking it because their experiences are different. Both song and silence are mere expressions, not interpretations. Song springs up from the overwhelming emotion while silence mutely reports the serene being of the Self withdrawn from all mental activities. Buddha's novelty lies in that his experience transcended the sensuous, rational and imaginative alike. Hence no language would work in it. There are different phases of mystic experience, the highest being when the body consciousness vanishes and the mind dissolves; the devotee becomes completely identified with the Reality which according to Vedanta the knower and the known merge with the knowledge. It is beyond words and mind, *Abang-manasa-gocaram* a phrase describing the superconscious state of

mystical experience. Kenopnishad I.3 says "there eyes do not penetrate, nor the words, nor the mind; He is other than the known and the unknown". In another words it is expressed in **Mundaka** Upanishad III.2.8-9

भिक्षते हृदयग्रन्थिश्छिद्यन्ते सर्वसंशयाः
क्षीयन्ते चास्य कर्माणि तस्मिन्दृष्टे परावरे

What mysticism asserts is plainly is the capacity of man to raise himself through sustained efforts to a plane of consciousness where the mind is freed from desires and cravings.

The songs of Mirabhai, Tulsidas and Ramprasad bear the internal evidence of their realisation. Most people undertaking the mystical quest rarely speak of it. It is rather difficult to recognise mystics who have already experienced divine oneness, although the emergent spiritual qualities are expressed through behaviour. The description of this divine oneness is more difficult to narrate than an artist's painting or a composer's symphony. It gives direct and immediate knowledge of Divine being. A mystic starts as an ordinary person but comes out of it as a transformed person with direct and immediate knowledge. This is an irreversible transformation of person's character and he cannot go back to his old way of life. This inner transformation includes; change in attitude and reaction towards world changes, refinement and chastening of his emotion, and responses to outer situations and perception of divine essence in all. So a mystic does cease to exist as a limited and selfish individual, but he still exists in the sense that he has attained the state of boundless consciousness.

Spiritual life cannot be divided into compartments. Sri Ramakrishna showed by his life what the Rishis and Avatars really taught in Upanishads. Vedanta says us that the educated man tend to live the life of glorious past humanity, but the Avatars live the life of future humanity. He was *undiluted by drinking in the thoughts of others because he did not go to the university* in the words of Swami Vivekananda. He was a living commentary on the texts of the Upanishads: "Whatever the Vedas, the Vedanta and all other Incarnations have done in the past, Sri Ramakrishna lived to practise in the course of a single life. One cannot understand the Vedas,

the Vedanta, the Incarnations and such like things without understanding his life" said Swami Vivekananda, even though Sri Ramakrishna knew nothing of Vedanta, nothing of the theories! A highly cultured intellect is capable of sensing many things which are closed to and hidden from poor intellects whose power of vision is limited to the surface level. Common sense has been described as practical good sense gained by experience of life affairs not through special study, and Sri Ramakrishna had an uncommon measure of this common sense. Sri Ramakrishna's spiritual sensitivity was seen on his reactions to incidents which other would not bother much about. He literally finds tongues in trees, books in the running brooks, Sermons in stones, and good in everything.

The entire Kathamrita [20] a study of the life and sayings of Sri Ramakrishna illustrates his experiences very well. Sri Ramakrishna observed "*something with a tingling sensation rises from the feet to the head. I remain conscious so long as it does not reach the brain, but the moment it does so, I am dead to the outside world. Even the function of the eyes and the ears come to stop including the speech... the very distinction between I and THOU vanishes. Sometimes I think I shall tell you everything about my feeling but somebody stops my mouth*". The similarity with the revelations of Sri Chaitanya:

नयनं गलद्-अश्रु-धारया, वदनं गद्गद-रुद्धया गिरा ।

पुलकैर् निचितं वपुः कदा, तव नाम-ग्रहणे भविष्यति ॥ ६ ॥

O my Lord, when will my eyes be filled with tears of love flowing constantly while I chant Your holy name? When will my voice choke up, and when will the hairs of my body stand upright on end at the recitation of Your name?

Sri Ramakrishna showed active sympathy with any suffering anywhere and even co-shared it. Example of boatmen quarrelling and slapping each other produced hurt indication at the back of him, whereas our shallow sympathy is too weak to produce a marked sentiment. When someone walked on grass lawn roughly, he experienced the pain of the green grass in his chest. During the period of spiritual practice the Master had planted five sacred trees (called panchavati), and wanted to protect the place from disturbing animal like

goats and cows. Soon after this desire, a bore in the Ganges came rushing up carrying with it the necessary bamboo poles, coir, rope, and even a big knife, which were deposited near the place. Many are the instances of this kind. In his case, the physical world would change according to his desire through some unknown mechanism. It is important to mention that Sri Ramakrishna proved all religion is true. God can be seen anywhere in the world by anyone belonging to any religion irrespective of their differences.

Some Common Features and Ways to Reconciliation Detachment and Universality

Science insists studying things from objective viewpoint thereby eliminating personal equation, avoiding thereby bias and prejudices if any at all. This means we are insisted in impartial judgement. This is exactly what is termed as *Saakshi* in scripture, being the prime characteristic of Atman in religious traditions. The two important characteristics of *Saakshi* are: detachment and universality. These two are considered as essential characteristics of science. Science is impersonal and the source of power in scientific discovery is not in what has been achieved but in how it has been achieved. "*The aim of science is to describe impersonal facts of experience in verifiable terms as exactly as possible, as simply as possible, and as completely as possible*" [21]. Explicitly any measurement by anybody should be repeatable, verifiable and reproducible anytime and anywhere else in the world. Though the fundamental principle of science is eternal like mysticism, there is continued and unprecedented intellectual progress in science which in the words of Swami Vivekananda "*man does not travel from error to truth but from less truth to higher truth*". In spirituality the Atman, the Supreme Purusha inherited in this body is called the Looker-on, the Permitter, and the Great Lord and the Highest Self as elaborated in Bhagvad Gita ch.13-23:

उपद्रष्टानुमन्ता च भर्ता भोक्ता महेश्वरः ।

परमात्मेति चाप्युक्तो देहेऽस्मिन्पुरुषः परः ॥

The Atman living in the body as *Saakshi* onlooker approves through conscience as ruler and protector.

Reasoning

Reasoning is the other common feature. It forms the cornerstone of any scientific investigation. Scientists are answerable to reason and facts. Vedanta accepts reason as one of the valid means for understanding and plays a helpful role at every stage in the interpretation of scriptural passages. Revelation (*Sruti*), reason (*Yukti*) and Realization (*Anubhuti*), being the Vedanta way giving full conviction of the Truth. Swami Vivekananda [22] viewpoint on this as stated in his lecture on Reason and Religion: “The *first principle of reasoning is that the particular is explained by the general-until we come to the universal. A second explanation of knowledge is that the explanation of a thing must come from inside and not from outside. The Advaita satisfies both these two principles.*” In spirituality reasoning is there up to a certain extent but thereafter, being subjective taken over by something else, some call it angel, some deva, some even attain through dream! Swami Vivekananda in his commentary of Raj yoga argued “*the field of reason is narrow and limited..... yet it is beyond this circle of reason that there lies all that humanity holds most dear. All these questions, whether there is an immortal soul, whether there is a God, Reason can never answer these questions....The Yogi teaches that the mind itself has a higher state of existence, beyond reason, a superconscious*” as elaborated under art.3A. It is coming through himself through yoga *yama* and *niyama* on purification of body-mind complex that include all ethical laws that govern our moral nature.

In-Depth Specialisation

The primary aim of science is in-depth study, smaller to smallest in colloquial terms. Science sacrifices breathe in search of depth i.e. intensive specialisation in utter disregard to totality. Science is one kind of investigation of the limited to the unlimited. But the spirituality one is required to upgrade perception of integrated vision from subtler to subtlest with field of view vast and wide. In Vedanta out of the five *khiti-twattas*, (*Khiti, Opah, Tej, Marut, Bohm* or *Akash*), the subtlest is the *Akash* having the last quality. The lowers in this scale are more *STC* bound than those in the upper in the scale, illustrating thereby transition from sensuous to super sensuous.

Delicate instrumentations form the observational tools in science while in spirituality it is the laboratory of mind needing to be perfected for clear perception. In achieving excellency in science however one needs self-sacrifice, and dedication to fulfil aspiration which is very similar to that required of spiritual aspirant.

Some salient features of both science and mysticism have been identified in the adjoin table at the end of the text.

Transformation/ Integration

Scientific developments ensure more human power but its misuse can lead to disaster since science does not say anything in controlling passions. All these form the subjective development in man. It is this inner journey, the subjective self within that makes the fundamental difference of spirituality with conventional science. The Greeks and Romans despite all possible perfections in external world viz. science and arts perished because they neglected the science of internal perfection. Swami Vivekananda [23] did not discard either said “*I do not mean that those who want to search after truth through external nature are wrong nor that those who want to search after truth through internal nature are higher.... both of them must be studied*”. The science of matter must be combined with mysticism, being the science of heart for holistic development.

Science has so far pursued the following three unifying routes:

Relativity/ Unified theory

Relativity says there is no preferential frame of reference in nature. All laws of nature are the same for everybody. This means nature does not provide any preferential frame of reference for anybody. Einstein worked on unified field theory whereby tried to unify the four forces-gravitational, electromagnetic, weak and strong forces that hold together all matter in the universe. There has so far been partial success but the latest being Theory of Everything or Super-string Theory. Unification of the four kinds of forces holding the universe i.e. the ultimate aim of scientific endeavours is Grand Unified Theory. To add in this context is the mysterious oneness response of matter with plant and animals as demonstrated by Sir J C Bose in 1901 at Royal Society in London [24].

Thermodynamics of self-organisation

The first law of thermodynamics through the law of conservation of energy shows the universe to be more ordered. Its origin dates back in Europe during industrial evolution it was observed the efficiency in any mechanical process continue to decrease in closed system. But in an open system of plant or animal it not only maintains order within them through exchange of energy from environment but can also evolve which may lead to higher order through a process of self-organisation as was originally proposed by Ila Prigogine, the 1977 Nobel Laureate in Chemistry.

Quantum Physics

A. Aristotelian--Newton--Quantum Physics

Through the laws of Physics we try to understand the natural order governing the material world through our experience and experimentation. The foundations of this were laid in late seventeenth century, termed as Newtonian Physics since Isaac Newton formulated these through unification of earlier works of Copernicus, Kepler, Bacon, Galileo and Descartes. Their predecessors Bruno, Copernicus and Galileo had very hard fights against the then dominated Roman Catholic and Protestant churches. Newton established that the physical world is made up of separate, irreducible building blocks of matter, the movements of which could be predicted and observed by an unbiased observer.

Newtonian Physics works so well in explaining the observable universe. But higher truth is built upon lower truth. Swami Vivekananda said “*we pass from truth to truth—from a lower truth to a higher truth—and never from error to truth*”. Aristotelian worldview was replaced by Newtonian Physics, which was then replaced by Einstein’s Physics, which was further replaced by Quantum Physics. Predictive power of any scientific method is limited. Every model continues to work well they can carry the leaky bucket long after the water has completely run out. Aldous Huxley put it this way, “Man is intelligence, not served by, but in servitude to his organs/ instruments”. Aristotle, Newton, Einstein and Heisenberg of Quantum Physics weren’t wrong, but they only carried truth available at that time, rather upgraded the truth to a certain level. This in the words of our scripture Bhagvad Gita 3.42;

इन्द्रियाणि पराण्याहुरिन्द्रियेभ्यः परं मनः ।

मनसस्तु परा बुद्धिर्यो बुद्धेः परतस्तु सः ॥ ३-४२

B. Mysteries in Quantum Physics against traditional concept

The following **peculiarities** in **Quantum Physics** against Newtonian or Classical Physics are listed as elaborated in my earlier paper [25]:

#1. **Quantum step or Discreteness:** action is continuous at macroscopic level while discrete in Quantum Physics occurring in step.

2. **Uncertainty or beyond Space, Time and Causality:** It is revealed that events in microscopic regime, termed as Quantum world is surmised with probabilities.

3. **Duality:** The central strangest feature is exhibition of dual behaviour of particles, particle or wave, prevailing upon external conditions.

4. **Inter-connectedness or Oneness:** In Quantum view the whole is not simply a sum of its parts but the behaviour is determined by all its interconnected parts.

5. **Conscious Observer:** Quantum Physics asserts conscious observer, a subjective role, but in Classical Physics the observer is outside the scenario of events, there is no way of his interfering in measurement outside. Some of the prominent pioneers Schrodinger, Heisenberg, Bohr, connected Quantum Mechanics to Mysticism of Vedanta. Heisenberg said “*What we observe is not nature itself, but nature exposed to our method of questioning.*” Vedanta has always spoken about the importance of the conscious observer. Quantum Physics has abolished the notion of independent separated parts through introduction of participator at the scenario in place of observer. The mystic and the physicist has now arrived apparently at similar conclusion of overlapping object with the observer; one starting from the inner realm, the other from the outer world. The primary concept in Quantum Physics is uncertainty from the certainty of Newtonian Physics. This probability concept is also there in our scripture Isa Upanishad sloka 5:

तदेजति तन्नैजति तदूरे तद्वन्तिके

तदन्तरस्य सर्वस्य तदु सर्वस्यास्य बाह्यतः

It moves, it does not move. It is far and it is near.

Mundak Upanishad II.1.9 says that this consciousness cannot be perceived by eyes, nor by ear, and not even be worked out by ordinary logical and worldly means, being the so-called prejudiced intellect, but can only be realized through purified mind. So the mind being the instrument of perception need be made super-conscious after going through the so-called ultra-purification, freed from bondage, subtle and gross through *yama* and *niyama* in the language of Patanjali yoga sutra [12], when it can be made to perceive. Eastern philosophy our ancient wisdom has asserted and assigned the importance to this cognizer, not to the act of cognition as Physics has been doing all along. This perceiver is Atman or Brahman in Vedanta while in Science it has been our mind or sharpened intellect.

An inspection of the Table 1 shows Quantum Physics satisfies most of the features of mysticism as against science.

Table 1. Some Salient Features of Science and Mysticism

Features	Science	Mysticism
Regime	physical world	super sensual world
Investigation	objective information	subjective transformation
Knowledge organ/s	brain only	brain and heart
Perception	fragmented	integrated
Mode of study	instrumentation	purified mind
Reasoning	STC	beyond STC
Morality	optional	compulsory
Observer	passive	active
Truth	impersonal	eternally impersonal
Output result	power	holistic vision

Conclusion

There is no conflict between physical sciences and spiritual sciences, between 'man, the known' and 'man, the unknown'. It is high time to turn our attention into the mystery of this inner dimension of nature's unique product, the man. Amongst all species human has awareness of the self as the subject of experience along with awareness of non-self as the object of experience both the within and

without nature. The experiences he usually chooses the changeful not the Changeless, the conditioned and not the Unconditioned, the perishable and not the Imperishable multiplicity and not Unity. But human also has a natural tendency to seek the Permanent in the impermanent, the Unlimited in the limited, and the Perfect in the imperfect just as water-flow constantly struggles to reach the ocean by straight or crooked ways knowingly or unknowingly.

In this world there are things to be seen with keen open eyes, through sharpening intellect as is usually done in science, but there are also things to be seen with clear closed eyes. Science does the former while mysticism the latter. So there is a vast field and tremendous inner energy, untapped, but is being wasted for lack of proper care. We tend to neglect the finer, the inner, while the unseen continue to itch for getting utilised and used.

Our reason lies submerged under the senses.

Our will is led by emotion.

Our thoughts look one way, our actions takes us another way.

This is the status for most of us. *Adhikari*, a Sanskrit term means an authority to claim a title. The person who is competent depends on the possession of requisite qualifications. Without any preparations and efforts thereby one cannot get anything in this world not to talk in spiritual life. Every objective worth attaining does require some sacrifices and considerable effort. The greatest achievement in life, actualizing divine unity, necessitates a huge sacrifice and will take voluminous effort than any previous task. Specifically in mysticism one requires purity of mind and without this purity, proper feeling in mind cannot be developed. Both internal and external purification are necessary. So Swami Vivekananda said "*let us perfect the means; the end will take care of itself. The world can be good and pure, only if our lives are good and pure. It is an effect we are the means. Therefore, let us purify ourselves. If we decide to come out of our narrow grooves of bias and prejudices there will be some struggle. One is required to expand his consciousness until he gradually transcends his present limitations and reorient his mind*

wider. *Mind only endures, not this body which is subject to degradation continuously*". He continued "*In the list of the qualities conducive to internal purity, as given by Ramanuja, there are enumerated, Satya, truthfulness; Arjava, sincerity; Daya, doing good to others without any gain to one's self; Ahimsa, not injuring others by thought, word, or deed; Anabhidhya, not coveting others goods, not thinking vain thoughts, and not brooding over injuries received from another*". This also requires freeing the mind from egoism and systematically feeding the mind with higher values and devoicing from modern values being so-called 3P 'pay, promotion and pension' thereby diluting all attachments through patience and perseverance and rejecting from one's nature all that is egoistic or of the *rajasic* nature. On the context of reconciliation perhaps the last word is from Swami Budhananda [26] "*It is possible to be immoral and scientific simultaneously. But it is impossible to be immoral and spiritual simultaneously*".

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