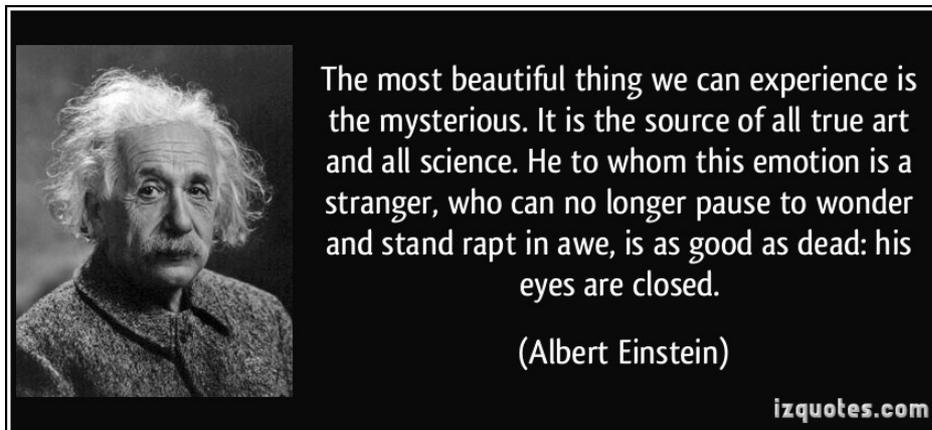


“The Mystery of Life within the Illusion of Physical Reality”

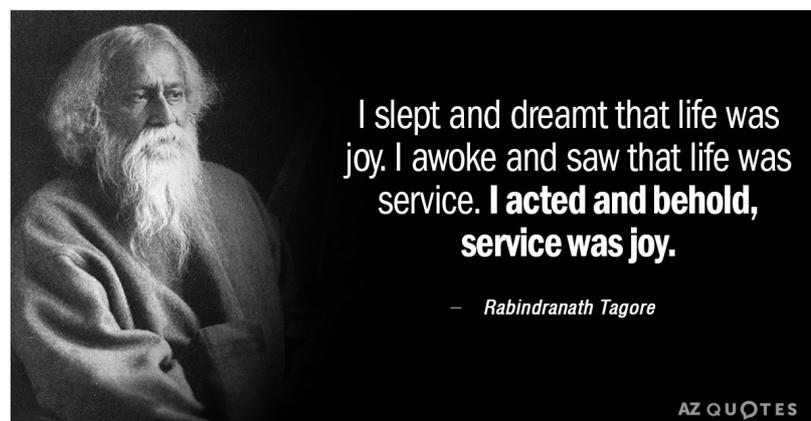
is well expressed by Albert Einstein who stated that



Lifting the veil and investigating the “Mysteries” of Life is the aim of every true Philosophy and Science. It is the evolution of mind and matter within the illusion of physical reality, the discovery of the essential Oneness of all life, and to make the dream of true Brotherhood possible through selfless service for the benefit of all as the Mahatma KH tells us in ML V:

The term “Universal Brotherhood” is no idle phrase. Humanity in the mass has a paramount claim upon us ... It is the only secure foundation for universal morality. If it be a dream, it is at least a noble one for mankind: and it is the aspiration of the true adept.

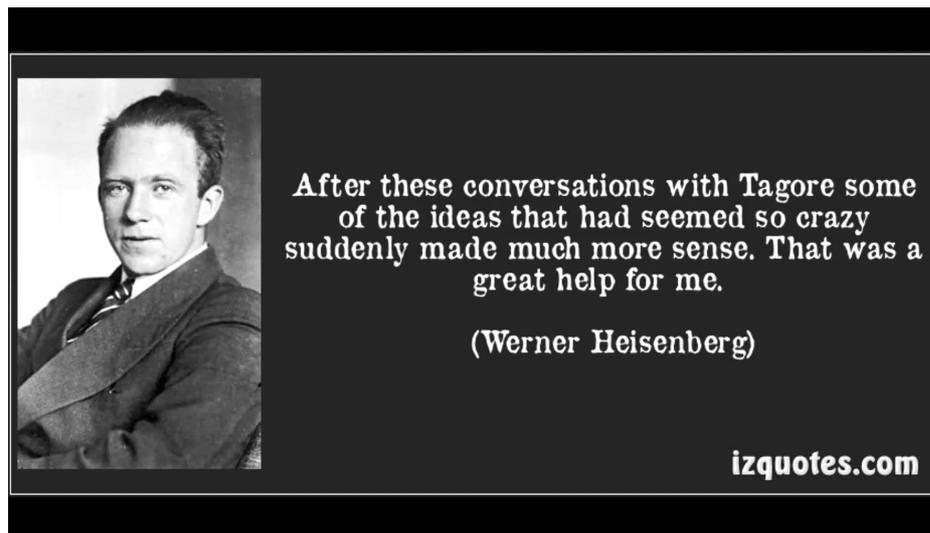
And the famous Indian poet and Philosopher Rabindranath Tagore once said



In 1913 he was honoured with the Nobel Prize in Literature, the first for an Asian poet. The Nobel Prize was presented “for lasting literary merit and for evidence of consistent idealism”, which is the pursuit of perfection. His collection of poetry, the **Gitanjali**, and its universal message of harmony

were also the focus of an event at UN Headquarters in New York at that time, promoting mutual respect and cross-cultural understanding. **The term 'Gitanjali'** literally means “Song Offering” in the Bengali language.

Tagore was also well respected by the giants of Western Sciences, some of whom personally met him, like Albert Einstein and Werner Heisenberg for example, who felt quite overwhelmed by the recognition of relativity in the transcendental world, its interconnectedness and especially its **impermanence** as fundamental aspects of physical reality in the atomic and subatomic world, and he said that



In the MLs the **Mahatma KH** makes a very powerful statement about what happens, when the perennial timeless wisdom of the occult sciences about this impermanence or illusion of the manifested world is ignored by mankind.

ML 18 p. 68: ... If for generations we have “**shut out the world** from the Knowledge of our Knowledge,” it is on account of its absolute **unfitness**, and if, notwithstanding proofs given, it **still refuses yielding to evidence**, then will we at the End of this cycle retire into solitude and our kingdom of silence once more....

We have **offered to exhume the primeval strata of man’s being**, his basic nature, and lay bare the wonderful complications of his inner Self — something never to be achieved by physiology or even psychology in its ultimate expression — and demonstrate it scientifically. It matters not to them (the men of the world) if the excavations be so deep, the rocks so rough and sharp, that in diving into that ... fathomless ocean, most of us perish in the dangerous exploration; **for it is we who were the divers and the pioneers, and the men of science have but to reap where we have sown.**

It is our mission to plunge and bring **the pearls of Truth to the surface; theirs (the scientists) — to clean and set them into scientific jewels.** And, if they refuse to touch the ill-shapen oyster-shell, **insisting** that there is [not], nor *cannot* be any precious pearl inside it, **then shall we once more wash our hands of any responsibility before human-kind.**

For countless generations hath the adept builded a fane of imperishable rocks, a giant's Tower of INFINITE THOUGHT, wherein the Titan (the Absolute or Universal Principle) dwelt, and will yet, if need be, dwell alone, emerging from it but at the end of every cycle, to invite the elect of mankind to co-operate with him and help in his turn enlighten superstitious man.

And we will go on in that periodical work of ours; we will not allow ourselves to be baffled in our philanthropic attempts until that day when the foundations of a new continent of thought are so firmly built, that no amount of opposition and ignorant malice ... will be found to prevail ...

(CW XIII p. 86) In an article called "The Babel of Modern Thought", published in the theosophical magazine 'Lucifer' in January 1891 HPB said "Deny, if you can, that the **most important** of our present sciences were known to the ancients...

Are not **physics and natural sciences** but an amplified reproduction of the works of Anaxagoras, of Empedocles, Democritus and others?

All that is taught now, was taught by these philosophers then. For they maintained—even in the fragments of their works still extant—that the Universe is composed of eternal atoms which, moved by a subtle internal Fire, combine in millions of various ways. With them, **this "Fire" was the divine Breath of the Universal Mind ...**

Furthermore they taught that there was **neither Life nor Death, but only a constant destruction of form, produced by perpetual physical transformations ...**

HPB made two very important predictions, one in "The Key to Theosophy", that during the last quarter of every hundred years an attempt is made by the Master of Wisdom to help with the spiritual progress of Humanity. **Someone or more persons will appear in the world as their agents, and that a greater or less amount of occult knowledge and teachings will be given out.**

A second and a very precise one can be found in **SD I p. 612** where she says, that we are at the close of the Aryan Kaliyuga, a Sk term describing the last of the four Yugas in the ancient Puranas, a collection of symbolical and allegorical writings. Kali means strife, discord, quarrel or contention, symbolizing the Dark Age. She predicts that a large rent will be made in the Veil of Nature, and that **materialistic science would receive a death-blow by 1897.**

Quite a statement, but was she right? There is every indication that she was. A 'spark' from the ancient occult wisdom has long since penetrated the scientific community, starting exactly at the date she predicted, a development already anticipated in the famous letter by the Maha-Chohan, containing valuable instructions passed on to some of the principle workers at the very early stage in the development of the Theosophical Movement in India. It says right on the first page that "The doctrine we promulgate, being the only true one, must – supported by such evidence as we are preparing to give – become ultimately triumphant like every other truth. Yet it is absolutely necessary to inculcate it gradually, enforcing its theories (unimpeachable facts for those who know) with direct inference, deduced from and **corroborated by**

the evidence furnished by modern exact science.

The Mahatma KH also confirmed in ML 65 that science is our best Ally.

Exactly in that year 1897 which HPB had predicted the English Physicist **Joseph J. Thompson** discovered the first sub-atomic particle, **the electron**, and out went the theory of an atom as being an indivisible solid building block of matter.

For some time it was thought, that an atom was a bit like a plum pudding, in which electrons were loosely connected. But only a few years later **Ernest Rutherford** discovered, that it had a nucleus consisting of protons (the neutrons were discovered some years later by his student **James Chadwick**), it was this nucleus, around which the electrons circled, and that most of the volume of an atom was empty space.

But that was not the end either. In 1964 the American physicist and Nobel Prize Laureate **Murray Gell-Mann** discovered, that the particles of the nucleus consist of still smaller particles called quarks, and today it is believed, that these particles only look like particles, but that they might be tiny vibrating filaments of energy.

For example, in physics, a **photon** is a bundle of electromagnetic energy. In 1900 Max Planck (1858 – 1947) Nobel Prize Laureate and one of the fathers of quantum physics made the assumption, that energy was made up of individual units or quanta, and in 1905 Albert Einstein theorized, that not just the energy, but the **radiation itself** was quantized in the same manner which he called photons. A **Photon** is not thought to be made up of smaller particles, and is therefore a basic unit of nature, called an elementary particle.

Brian Greene, Prof. of Physics at Columbia University NY writes in his book “The Elegant Universe”, that “Every particle is **surrounded by an electric field** - a so called cloud of electric essence – and the force each particle “feels”, arises through the interaction of their respective force fields by way of literally shooting quanta of light or photons at each other,

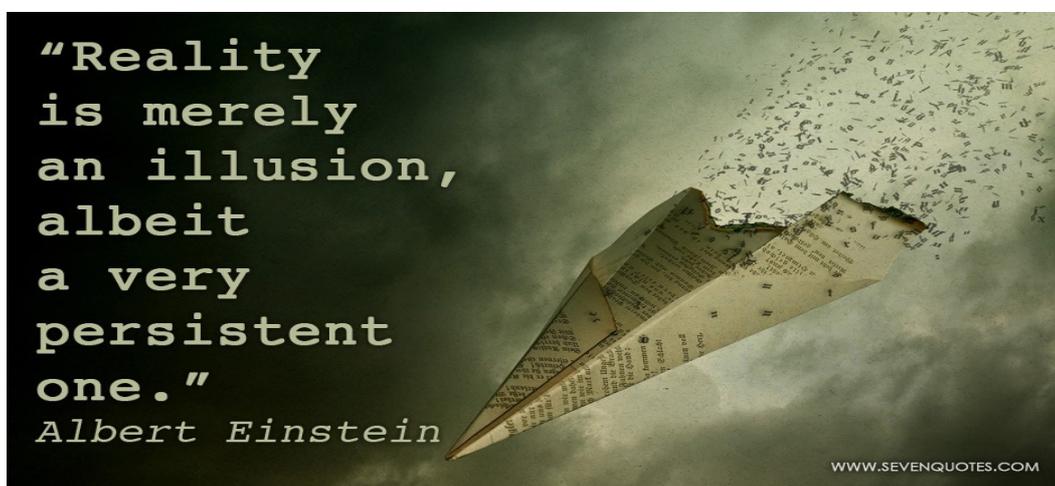


that a quanta of light is not so much a transmitter of force per se, but rather the **transmitter of a message** of how the recipient must respond to the force in question, and for this reason the **photon** is sometimes referred to as the **messenger particle** for

the electro-magnetic force, of which it is the smallest individualized packet”.

The SD I (p. 137 fn) also tells us, that the **Light** of the Logos is the link between objective matter and subjective thought ... it is Fohat (the dynamic energy of cosmic Ideation - Proem), the one instrument with which the Logos works.

Albert Einstein said already at the beginning of the 20th century, when he formulated his general theory of relativity, that space and time are intertwined, **that matter is inseparable from an ever present quantum energy field, underlying all appearances**, which he expressed with his famous words “We may therefore regard matter as being constituted by the **regions of space**, in which the energy-field is extremely intense. There is no place in this new kind of physics for the field **and** matter, for **the field** is the only **reality**; and about **our perception of reality from the manifestations** in this underlying energy-field he says, that this



This awareness has haunted the scientific community for over a century, when it became obvious, that matter is not at all what it seems to be and nor is time.

In ancient Hindu Philosophy this power of illusion, which makes phenomenal existence and its perception by finite minds possible, is called Maya, because it is subject to change through decay and differentiation, and which therefore has a beginning and an end. Only that which is changeless and eternal is called Parabrahm in Sk – the secondless or absolute reality, an impersonal principle beyond human speculation (CW V p. 50)

SD I p. 39/40: Maya or illusion is an element which enters into all finite things, for **everything that exists has only a relative, not an absolute, reality ... Nothing is permanent except the one hidden absolute existence which contains in itself the noumena of all realities.**

The existences belonging to every plane of being, up to the highest Dhyān-Chohans (or Highest Intelligences) are, in degree, of the nature of **shadows cast by a magic lantern on a colourless screen (HPB referring to Plato's example); but all things**

are relatively real, for the cogniser is also a reflection, and the things cognised are therefore as real to him as himself.

Whatever reality things possess must be looked for in them before or after they have passed like a flash through the material world; but we cannot cognise any such existence directly, so long as we have **sense-instruments which bring only material existence into the field of our consciousness.**

Whatever plane our consciousness we may be acting in, **both we and the things belonging to that plane are, for the time being, our only realities.** As we rise in the scale of development we perceive that during the stages through which we have passed we **mistook shadows for realities**, and the upward progress of the Ego is a series of progressive awakenings, each advance bringing with it the idea that now, at last, we have reached **“reality;”** but only when we shall have reached the absolute Consciousness, and **blended our own with it, shall we be free from the delusions produced by Maya.**

SD I p. 124: Modern Science is drawn more every day into the maëlstrom of Occultism; unconsciously, no doubt, still very sensibly. The two main theories of science—*re* the relations between Mind and Matter—are **Monism and Materialism, says the SD.**

Dr. Amit Goswami, Prof. Emeritus of theoretical nuclear physics from the University of Oregon explains in his book “The Visionary Window – A Quantum Physicist's Guide to Enlightenment”, a bit deeper what Monism is. Spiritual Eastern traditions posit, that **transcendent consciousness** rather than matter is the ground of all being, and that all else is epiphenomena (or a side effect).

That consciousness is **both inside and outside of material Space-Time reality**; as transcendent or **outside** it is pure consciousness un-manifest, immanent or **inside** it **appears split as self and the world**, brought forth by the mysterious force called Maya in Hindu Philosophy. He describes Monistic Idealism as Vedanta in accordance with the Upanishads, where it is said that only Brahman has reality, while the whole phenomenal world is the outcome of illusion or Maya, the same philosophy as the TAO in China.

The proponents of monistic idealism like Advaita Vedanta, Plato, Plotinus and Hegel for example point out, that their philosophy is based on investigation, that **consciousness can be known directly in its inclusive suchness because “We are That”.**

This profound truth has inspired many scientists, for example

David Bohm (1917 – 1992) Prof. of Theoretical Physics from the University of London, who said in a lecture at the Mystics and Scientists conference in 1983 that we are only scratching the surface of reality and that this will probably always be the case. We can extend our knowledge, but however far we go there is always a limit – **or the unknown beyond it.** It does not look as if knowledge is going to comprehend the ultimate totality of

all that is, whatever that may be.

He also speculated on a different energy field in Space-Time implied by quantum theory **that is not describable in classical physics at all**. This is what he calls a simple implicate order or a quantum formative field which determines not only the interrelationships of all the particles, but actually their formation. It would have to be described as a multi-dimensional order which not only acts on the three dimensional field, but also connects and relates fields in different parts of space and **has to be seen as a single whole**. We would say then that the things that have appeared to us so far are **merely on the surface** of the whole thing. As we go deeper we are constantly revealing new features, and that the things that first appear are superficial, merely a display of something deeper. The **ultimate principle** is unfoldment, which generates time (to which we will come a bit later). The possibility of life does not arise from the **superficial appearance of things but from something much deeper**.

HPB said something very similar in the **SD I p. 671-672**: ... no Eastern Initiate would speak of **Spheres** “above us, between the earth and the airs”, even the highest, as there is no such division or measurement in occult speech, **no “above” as no “below”, but an eternal “within”, within two other within**s, or the plane of subjectivity, merging gradually into that of terrestrial objectivity – this being for man the last one, his own plane.

Prof. Bohm maintains, that **life is organized according to an infinite hierarchy of implicate (or directly connected) orders**. If we take the idea of space as full, that the **vacuum** is full of energy, then we could say this energy has evolved into various forms through various formative fields.

SD p. 8-9 In the Proem of the SD we can read as well, that 'Space is neither a “limitless” **void (or vacuum)** nor a “conditioned” fullness, but both: on the plane of absolute abstraction, (it is) the ever in-cognizable Deity, which is **void only to finite minds**, and on that (plane) of mayavic perception, (it is) the Plenum (or) absolute Container of all that is, whether manifested or un-manifested ... therefore that ABSOLUTE ALL.

(TransBL p. 20) When HPB was questioned by her students about consciousness and what it is, she gave a very unique description, that the Absolute – or the attribute- and secondless reality – is dormant and latent mind ...

“It is **absolute consciousness eternally**, which consciousness becomes *relative consciousness* periodically, at every “Manvantaric dawn” (or new cycle of activity). Let us picture to ourselves this latent or potential consciousness as a kind of **vacuum** in a vessel, she says. Break the vessel, and what becomes of the vacuum; where shall we look for it? It has disappeared, it is everywhere and nowhere. It is something, yet *nothing*: **a vacuum, yet a plenum ((or the absolute Container of all that is, whether**

manifested or unmanifested).

But what in reality is a vacuum? she asked ... Is not absolute Vacuum a figment of our fancy? A pure negation, a supposed Space where nothing exists? This being so, destroy the vessel, and - to our perceptions at any rate - nothing exists. Therefore Stanza II (of the SD) puts it very correctly; “Universal Mind was not,” because there was no vehicle to contain it.

In his book “A beautiful Question – finding Nature's deep Design” Frank Wilczek, Nobel Prize Laureate and Prof. of Physics at the Massachusetts Institute of Technology comes to a similar conclusion, that the word “vacuum” is commonly understood to mean empty space, devoid of matter. That all depends on how hard we are looking. But the “vacuum” of interstellar space is permeated by a variety of quantum energy fields, that the word “vacuum” does not refer unambiguously to a definite thing. And that the philosophical concept of Void – or space as perfect nothingness – is quite different from any reasonable understanding of **physical space** in the present day physical world.

In modern physical cosmology it is important to take into account, that space-filling fields, such as the electromagnetic field for example or the newly discovered Higgs field, have profound physical effects, altering the behaviour of matter and contributing to dark energy; they are pervasive and inescapable. The behaviour of matter within these different vacuums can be drastically different. It is suggestive, that space itself is a sort of material, that can exist in different phases, just as water can exist as liquid water, ice or steam.

If we look at evolution not only of life, but of matter in general, then matter, as a totality, is a kind of super intelligence that has inward depth, which emanated our bodies and **intelligence as a further development** in its totality, says Prof. Bohm

The same subject is also addressed by the Mahatma KH in ML 90 where he says: The difficulty of explaining the fact that “**unintelligent Forces can give rise to highly intelligent beings like ourselves,**” is covered by the **eternal progression of cycles**, and the process of evolution ever perfecting its work as it goes along ... it is one of the elementary and fundamental doctrines of Occultism that **the two are one, and are distinct but in their respective manifestations, and only in the limited perceptions of the world of senses ...**

Our doctrines show but **one principle in nature — spirit-matter or matter-spirit, the third the ultimate Absolute or the quintessence of the two ...** losing itself beyond the view and spiritual perceptions of even the “Gods” or planetary Spirits. **This third principle, say the Vedantic Philosophers — is the only reality, everything else being Maya ... Purusha and Prakriti have never been regarded in any other light than that of temporary delusions of the senses.**

The word **Universe** is a bit ambiguous, says Prof. Bohm, because it literally means to 'turn towards the one', so the universe should really be a “**way of looking**” and **not seen as a thing**. He introduces the term *soma-significant* – soma standing for body,

matter or the physical, and significance means **meaning**; the hyphen between them indicates, that they are **not really different but somehow interact**.

Everything is somatic or physical at its own level, which may be very subtle, and yet it has **meaning for what lies beyond or inwardly**. This would suggest, that the **universe could be regarded as the body of the universal mind**, says Prof. Bohm.

(SD I p. 16 ff) The SD describes the Eternity of the Universe (or Space) overall as a boundless plane, periodically “the playground of numberless Universes incessantly manifesting and disappearing” ... like a regular tidal ebb of flux and reflux” ... It happens **according to the absolute universality of that law of periodicity**, which physical science has observed and recorded in all departments of nature ... In it we see one of the absolutely fundamental laws of the universe.

Prof. Amit Goswami, whom I have mentioned before, wrote in his book “**The Self-Aware Universe**” about another hypothesis concerning the “playground of universes” or the “Multiverse” and its interaction with an observer, comparing it with what is called “Superposition” in science.

Superposition is a principle of [quantum theory](#) that describes a challenging concept about the nature and behaviour of matter and forces at the sub-atomic level. The principle of superposition claims, that while we do not know what the state of any object in the subatomic world is, it is actually in **all possible states simultaneously and potentially**, as long as we don't look to check. It is the measurement itself by an observer that causes the object to be singled out and limited to a form out of all the other possibilities.

Supposing that parallel Universes of the many worlds theory are **not material but archetypal – or potential** - in content, and that they are **Universes of the Mind**, then we can say that each observation makes a causal pathway in the fabric of possibilities in the **transcendent** domain of reality. Once a choice is made, all except the **one pathway which was chosen does then manifest, all the others** remain as possibilities (or ideas) only.

A truly cosmological question can now be answered, says **Prof. Goswami**: How has the Cosmos existed for the past fifteen billion years when there were no conscious observers? He supposes that the Universe exists as **formless potentia in myriads of possible branches in the transcendent domain and becomes manifest only when observed (and manifested) by conscious beings**.

(“The Visionary Window) But how does the one undivided consciousness with its possibilities become divided into an experiencing subject and an experienced object, Prof. Goswami asked, and quoted one of the great and intriguing sentences in the Upanishads “**You are That**” - **tat tvam asi**.

What does Theosophy teach us about the process of manifestation of multiple Universes, and does it confirm Prof. Amit Goswami's theory that an observer is necessary to make it possible? It does!

ML p. 15: Apart from Cosmic Substance, Cosmic Ideation could not manifest as individual consciousness, since it is only through a vehicle of matter that consciousness wells up as "I am I", a physical basis being necessary to focus a ray of the Universal Mind at a certain stage of complexity. Apart from Cosmic Ideation, Cosmic Substance would remain an empty abstraction, and no emergence of consciousness could ensue, says the Mahatma KH.

The technical details of the whole process are given by HPB in the Transactions of BL and the SD.

TransBL p. 28: **Once we postulate a Universal Mind, both the brain, the mind's vehicle, and Consciousness, its faculty, must be quite different on a higher plane from what they are here, says HPB.** They are nearer to the *Absolute ALL*, and must therefore be represented by a substance infinitely more homogeneous; something *sui generis (or unique)*, and entirely beyond the reach of our intellectual perceptions. Let us call or imagine it an incipient and incognizable state of primeval differentiation. **On that higher plane, as it seems to me, Mahat - the great Manvantaric Principle of Intelligence - acts as a Brain**, through which the Universal and Eternal Mind radiates the **Ah-hi**, representing the resultant Consciousness or ideation ...

SD I p. 38: **The AH-HI (Dhyan-Chohans or highest intelligences) are the collective hosts of spiritual beings ... who are the vehicle for the manifestation of the divine or universal thought and will. They are the Intelligent Forces that give to and enact in Nature her "laws," while themselves acting according to laws imposed upon them in a similar manner by still higher Powers; but they are not "the personifications" of the powers of Nature, as erroneously thought, says HPB.**

(SD II p. 279 ff) The SD admits a Logos or a collective "Creator" of the Universe; a *Demi-urgos*—in the sense implied when one speaks of an "Architect" furnishing the plan ... in our case **the plan was furnished by the Ideation of the Universe**, and the constructive labour was left to the Hosts of **intelligent Powers and Forces**. But that *Demiurgos* is no *personal* deity,—*i.e.*, an imperfect *extra-cosmic god*,—but only the **aggregate of the Dhyan-Chohans and the other forces**.

They are dual in their character; being composed of (a) the irrational brute energy, inherent in matter, and (b) the intelligent soul or cosmic consciousness which directs and guides that energy, and which is the Dhyan-Chohan thought reflecting the Ideation of the Universal mind. This results in a perpetual series of physical manifestations and *moral effects* on Earth, during manvantaric periods, the whole being **subservient to Karma**.

As that process is not always perfect, and since however many proofs it may exhibit of a guiding intelligence behind the veil, it still shows gaps and flaws, and even results very often in evident failures—therefore, neither the collective Host (Demiurgos), nor any of the working powers individually, are proper subjects for divine honours or worship ... and man ought to be ever striving to help the divine evolution of *Ideas*, by becoming to the best of his ability a *co-worker with nature* in the cyclic task ...

In **June 2004 Sir Roger Penrose**, Emeritus Prof. of Mathematics from the University of Oxford, had a discussion at Oxford University with **Dr. T.D. Singh**, a scientist with a PhD in Physical Organic Chemistry from Irvine University in California, who is International Director of the Bhaktivedanta Institute. He is a pioneer in advancing the dialogue between science and religion.

The subject of their discussion was “Science, Spirituality and the Nature of Reality”, where **Prof. Penrose explains, that we have two different layers of reality**. The small level which is quantum, and a second one where classical physics holds true.

There is a fuzzy borderline between the two **where we need a new physics**. At the **larger level** it is not the individual particles, but **the entire quantum process** that is in some sense cooperative over large areas of the brain and it is **non-local**. We know that **many things in living systems are far beyond what can be achieved in the laboratory**.

We are in the position of a little child entering a huge library filled with books in many languages, he says. The child knows someone must have written those books, but it does not know how, because it does not understand the languages in which they were written. It dimly suspects a mysterious order in the arrangement of the books, but does not know what it is. That, it seems to me, is the attitude of even the most intelligent human being towards the term “God”. We see the universe marvelously arranged and obeying certain laws, but only dimly understand them, and he quotes Einstein again who said, that Quantum Mechanics is not the final theory, because there is no room for consciousness, it has no place for it yet. There are many things in Nature that we do not understand, there is something really deep, very deep which is mysterious.

The advise Sir Roger Penrose gives is, that every person has its own strength, whatever that may be. **Believe in yourself** and do not necessarily think that just because somebody is a **big professor** that he knows all very well what is going on in the world and that you have just to follow his ideas. Often these ideas are fashion driven, **which should not be blindly followed**.

Perhaps we may **never be able to understand the Ultimate Reality through rigorous scientific approach**. Some fundamental new insights are certainly needed. Try to **think for yourself**, there is a lot of following other people's thinking. It is very difficult for some people to break out of their mindset, to break

into something that is totally new. **Are you brave enough to follow your own ideas** more truly, he asks at the end of the conversation.

HPB gives the same advise in her article “Nirvana Moksha” **CW XIV p. 417** with even stronger words, quoting from a Buddhist Catechism where the question is asked: Are there any dogmas in Buddhism which we are required to accept on faith?

The answer is NO. We are earnestly enjoined to **accept nothing whatever on faith**; whether it be written in books, handed down from our ancestors, or taught by the sages. Our Lord Buddha has said that we **must not believe in a thing said merely because it is said**; nor in traditions because they have been handed down from antiquity; nor rumours, as such; nor writings by sages, because sages wrote them; nor fancies that we may suspect to have been inspired in us by a deva (that is, in presumed spiritual inspiration); nor from inferences drawn from some haphazard assumption we may have made; nor because of what seems an analogical necessity; **nor on the mere authority of our teachers or masters.** But we are to believe when the writing, doctrine, or saying is **corroborated by our own reason and consciousness.** “For this,” says he, in concluding, **“I taught you not to believe merely because you have heard, but when you believed of your consciousness, then to act accordingly and abundantly.”**

And in **ML 120** we can read - thus it is plain, that the methods of Occultism, though in the main unchangeable, have yet to conform to altered times and circumstances, and that the state of the general Society in England is unlike that of India ... and requires quite a different policy in the presentation of Occult Science.

Dr Deepak Chopra, a pioneer of integrative medicine, which combines conventional Western Medicine with complementary and alternative therapies, and Dr. Menas Kafatos Professor of Physics, Computational Science and Engineering, at Chapman University in California, wrote in their book **“You are the Universe – Discovering your Cosmic Self and why it matters”**, that Reality is all-inclusive, and that human beings can embrace an infinite variety of what reality has to offer. Everything we perceive is a mental creation, accumulated over millions of years of evolution.

Human beings might be a bright idea the universe had, but why? This can mean only one thing – **we** allowed the universe to be aware of itself in the **dimension of time and space.** Quantum physics makes it undeniable that we live in a participatory universe, **our minds are fused with the cosmic mind.** The reason why it took so long to arrive at this conclusion is that stubborn materialism. The brain just serves as a doorway to where consciousness lives.

Photons strike our retina as we read information, which gets transformed into faint electrical impulses in the brain. Anything a person can say, think or do can be

computerized in the form of a digital code using 1s and 0s. Unless the universe is mindful, it is impossible to create a mind out of a mindless creation.

Neurons for example do not listen to music **'we'** do. Even the most basic elements of consciousness are absent from the brain, it has no idea that it exists. It does not decide what music we would like to listen to on the radio, **our mind does**. Consciousness is **not** 'in' the universe any more than wetness is in the water, consciousness is there already. Wetness and water co-exist, they are inseparable from each other.

The SD (I p. 56) says something similar, namely that ...concrete consciousness cannot be predicated of abstract Consciousness, any more than the quality wet can be predicated of water—wetness being its own attribute and the cause of the wet quality in other things. Consciousness implies limitations and qualifications; something to be conscious of, and someone to be conscious of it. But Absolute Consciousness contains the cognizer, the thing cognized and the cognition, **all three in itself and all three one**.

Which parts of our own reality can we change, **using only our mind**, that actually make a difference, ask **Dr. Chopra and Prof. Kafatos**. This needs to be defined by a term which the average person has probably never heard of – **Qualia, a Latin word which means “qualities”**. It points away from physical objects towards subjective experiences. Qualia are the everyday qualities of existence – light, sound, colour, shape, texture – they are the glue that holds the five senses together – like the scent of a rose, the velvety texture of its petals and shape for example.

Qualia is everywhere, nothing happens without them, they are the **subjective** building blocks of reality. The **body is not experienced** as cells, tissues and organs, but rather in **different states of awareness**. Mind comes first and reaches out to **experience reality through qualia, embracing the five senses**. The Universe is in us, and since qualia occur in consciousness, they are **not limited by physical dimensions**.

The brain produces images in such a way that it is **not inside its tissues** - no matter how hard we look, we will not find any image in the brain. It just serves one function: it **gives access to the mental 'Space' where all concepts, experiences, memories, images and all qualia reside**. Like images on a TV screen for example. They are a play and interplay of electrons. They don't tell us anything about the meaning of the story we see, only the mind enables consciousness to perceive the meaning.

The mind may pause and marvel at **how convincing** the state of separation can be. The Universe is one undivided whole, **its parts** like atoms, galaxies, forces etc. are **qualia or qualities of consciousness**. The **same 'place'** to see the image of a rose in our mind's eye is where nature goes as well when it creates an actual rose. We participate in the same **consciousness that IS the Universe**.

A ripe sweet peach for example floods the senses with experience and not with numbers or equations. **Qualia perfectly matches reality**. Experience does not need

conceptual frameworks, but it is the seed for a new view of nature, **transforming** the physical universe into a consciousness based one.

Qualia are perceived as insight, intuition, imagination, inspiration and creativity. The organs of perception do not create perception, but are **the lens through which consciousness and its qualia create perceptual experience**. Feelings like pain, hunger and emotions cause the body to evolve a symbolic representation, a feedback loop that **originates in consciousness, not in the biology of the brain**.

Consciousness is a field of all possibilities and exists prior to experience. The source of manifestation is **beyond** space, time, matter and energy.

Human consciousness looking at itself is a **mirror for the field of consciousness** looking at itself. Evolution is purpose-driven through each species, as it **experiments** with its environment and **gets feedback**. Humans have the gift of self-awareness, coming to terms with its true nature. Self-awareness will be the starting point for the next leap in our creative evolution, say Dr. Chopra and Prof. Kafatos, motivated by human aspiration, taking our civilization in the direction of **wholeness, healing and enlightenment**.

During the last couple of month we also investigated the illusion of time and the mystery of life at BL in two lectures under the title “Eternal Duration and Moments in Time” - and “From Darkness to Light and from Light to Life”.

Starting with time which seems to be moving on in a very precise order of seconds, minutes and hours, and around which our life is organized. We take it for granted, but its mystery has challenged Philosophers and Scientists alike. Both agree, that it is a deception of our senses.

SD I p. 35: Time is only an illusion produced by the succession of our states of consciousness as we travel through eternal duration, says the SD, and it **does not exist where no consciousness exists in which the illusion can be produced**, but “lies asleep.”

The **present** is only a (hypothetical) **mathematical line** which divides that part of eternal duration which we call the **future**, from that part which we call the **past**. Nothing on Earth has real duration, for **nothing remains without change**—or the same—**for the billionth part of a second**. **The real person or thing does not consist solely of what is seen at any particular moment, but is composed of the sum of all its various and changing conditions from its appearance in the material form to its disappearance from the earth.**

No one could say that a **bar of metal dropped** into the sea came into existence as it left the air, and ceased to exist as it entered the water, and that the bar itself consisted only of that **cross-section** that separates and, at the same time, joins the atmosphere and the ocean. Even so of persons and things, which, **dropping out of the to-be into the has-been, out of the future into the past—present**

momentarily to our senses a cross-section, as it were, of their total selves, as they pass through time and space (as matter) on their way from one eternity to another: and these two constitute that “duration” in which alone anything has true existence, **were our senses but able to cognize it there.**

ML 104/25: ... though the whole Cosmos is a gigantic chronometer in one sense, says the Mahatma KH ... man is the only animal that takes any cognizance of time, although it makes him neither happier nor wiser ... **Finite similes are unfit to express the abstract and the infinite; nor can the objective ever mirror the subjective.**

And in letter **ML 20 p. 73** the Mahatma KH strongly emphasizes, that the Occult Science is *not* one in which secrets can be communicated of a sudden, by **a written or even verbal communication.** If so, all the “Brothers” would have to do, would be to **publish a *Hand-book* of the art which might be taught in schools as grammar is ... the illumination *must come from within* ...** no hocus pocus of ... metaphysical lectures or discussions, no self-imposed penance can give it. All these are but means to an end ... And this was and has been *no secret* for thousands of years. Fasting, meditation, chastity of thought, word, and deed; silence for certain periods of time **to enable nature herself to speak to him who comes to her for information;** government of the animal passions and impulses; utter unselfishness of intention ... have been published as the means since the days of Plato and Iamblichus in the West and since the far earlier times of our Indian *Rishis*.

This always reminds me of a passage in “The Voice of the Silence” where it says:

“Be humble if thou wouldst attain Wisdom, be humbler still when Wisdom thou hast mastered”

In an article for the New York Times called “The Time we thought we knew” **Brian Greene**, an American theoretical physicist, mathematician, and string theorist, Professor at Columbia University in NY wrote, that Time dominates experience. But what is Time? he asks. Certainly a few years into the 21st Century Science must have figured out why time seems to flow, why it always goes in one direction, and why we are uniformly drawn from one second to the next. But the fact is that the explanations for these basic features of time remain controversial. The more physicists have searched for definitive answers, the more our everyday conception of time appears illusory.

But at the early part of the 20th century Albert Einstein showed, that the wristwatches worn by two individuals moving relative to one another, or experienced different gravitational fields, tick off time at different rates. Numerous terrestrial experiments and astronomical observations leave no

doubt that Einstein was right, says Prof. Greene, because the flexibility of times passage becomes readily apparent only at high speeds (near the maximum possible speed of light, which is about 186.282 miles per second) or in strong gravitational fields (near black holes for example), which remains still a great challenge, even for physicists, to internalize Einstein's breakthrough from about 100 years ago.

Most of us imagine that reality consists of everything that exists right now – that everything would be found like a hypothetical freeze-frame image of the universe at this moment, that the history of reality could thus be depicted by stacking one such freeze-frame image on top of the one that came before it, creating a cosmic version of an old-time flip book, a remnant of Newton's absolutist thinking.

But clocks that are in relative motion or that are subject to different gravitational fields tick off time at different rates. Individuals carrying such clocks will therefore not agree on what happens “When” on the different pages of the cosmic flip-book, even though it provides an equally valid compendium of history. Under these rules, what constitutes a moment in time is completely subjective. Sitting next to each other, our freeze-frame images of the present would be identical. But as soon one of us were to start walking, the mathematics of relativity shows, that the subsequent pages of the flip-book would have happened at different times, some earlier and some later. This realization shatters our comfortable sense that the past is gone, the future is yet to be, and the present is what truly exists.

This is also what the Mahatma KH means when he says in letter 15 (8):
I feel even irritated at having to use these **three clumsy words — past, present and future! Miserable concepts of the objective phases of the Subjective Whole, they are about as ill adapted for the purpose as an axe for fine carving.**

Most physicists cope with this disparity, writes **Prof. Greene**, that there is time understood **scientifically**, and that there is time as **experienced intuitively**. The choice of whether to be fully seduced by the “face” nature reveals directly to our senses, or to also **recognize the reality that exists beyond perception is ours.**

And what about Life? In the physical sciences, like biology, life proper starts with the a self-maintaining system, yet Theosophy teaches us (**CW XII p. 133**). that whatever quits the **Laya** (or homogeneous latent state) becomes **active conscious life**. But what properties must a system have to be called **truly living**? Can a clear distinction be made between motion and a living systems? What is the precise connection between self-organization and life?

These challenging questions were studied and addressed by the two Chilean scientists Dr. Humberto Maturana and Dr. Francisco Varela. They coined a new word for what defines a living or vital system – **Autopoiesis** – a combination of the two Greek terms “auto”, which means self, referring to the autonomy of a self-organizing system. “Poiesis” - sharing the same Greek root as the word 'poetry' - which means making.

Autopoiesis therefore means “self-making” - a peculiar closure of living systems, which are alive and maintain themselves metabolically, whether they succeed in reproduction or not. Unlike machines, whose governing functions are embedded by human designers, **organisms on the other hand are self-governing.**

Autopoiesis emphasizes life's **maintenance of its own identity.** The key characteristic of a living network is that it **continually produces itself**, a distinct system while being an active part of the network.

Through their interaction with the environment living organisms **continually maintain and renew themselves, using energy and resources from the environment for that purpose.** The continual self-making includes the **ability to form new structures and new patterns of behaviour.**

According to Autopoiesis the mind is not a thing but a process, that the organizing activity of living organisms is mental activity and interaction. Mental processes are immanent in matter at all levels. Learning, memory, decision-making etc. are mental processes, a necessary and inevitable consequence before organisms develop brains and higher nervous systems.

(SDC p. 16 f) HPB confirms in her SD Commentaries that on this (our) very same plane there are not only the intellects of men, there are other intellects and intelligences, call them what you like. The minds of animals, from the highest to the lowest, from the elephant down to the ant. I can assure you that the ant has in relation to its own plane just as good an intellect as we have. If it cannot express it to us in words, it yet shows high reasoning powers, besides and above instinct, as we all know.

SDC p. 18f: To say that animals have no intelligence is the greatest fallacy in the world ...

Dr. Maturana's and Dr. Varela's concept of what the nature of life and cognition is was called later on the Santiago Theory. According to this theory the brain is not necessary to exist. A bacterium or a plant has no brain but has a mind. Mind and matter no longer appear as two separate categories, but are seen as merely different aspects or dimensions of the same phenomenon of life.

It is a continual bringing forth of a world through the process of living, that the process of living itself is a process of cognition, including perception, emotion and behaviour, which does not necessarily require a brain and

nervous system. That even bacteria perceive certain characteristics of their environment. Development is always associated with learning, the two sides of the same coin. Cognition is not a representation of an independent world, but rather a bringing forth of a world where no objectively existing structures exists independently, but are part of each other in a network of inter-dependence.

As the complexity of a living organism increases, so does its cognitive domain. The **brain and nervous system represent a significant expansion of an organisms cognitive domain.** At a certain level of complexity a living organism not only couples to its environment but also to itself, and thus brings forth not only an external **but also an inner world.** In human beings this process of an inner world is intimately linked to **language, thought and consciousness.**

(SD I p. 257) Everything in the Universe progresses steadily in the Great Cycle, while incessantly going up and down in the smaller cycles, says the SD. Nature is never stationary during manvantara, as it is ever *becoming*, not simply *being*; and mineral, vegetable, and human life are always adapting their organisms to the then reigning Elements, and therefore *those* Elements were then fitted for them, as they are now for the life of present humanity.

I would like to close with a few paragraphs from an original Aramaeic text of the "Essene Gospel of Peace, Book IV 'The Teachings of the Elect'".

For the Brotherhood of the Essenes the "Heavenly Father" was Law, governing everything in the manifested Universe. The Earthly Mother was Nature in its constant adaptation of bringing forth suitable vehicles for the manifestations of life in their countless forms. Jesus emphasized, that the communication with the vital forces of sound, light and life were absolutely essential for our evolutionary progress, and he said

... when the sun is high in the heavens
then shall you seek the Holy Stream of Sound ...
for it can only be heard in the silence ...

It was this sound which formed the earth and the world ...
And you shall bathe in the Stream of Sound ...
for in the beginning of times did we share in the holy stream of sound
that gave birth to all creation ...

become the sound itself
that the stream of sound may carry you
to the endless kingdom of the Heavenly Father,

there where the rhythm of the world rises and falls.
Let your thoughts before sleep be with the stars
for the stars are Light, and the Heavenly Father is Light ...
For at the beginning of times the **Holy Law** said
Let there be light, and there was Light
and you shall be one with it ...

One day your body will return to the Earthly Mother.
But the Holy Stream of Life, the Holy Stream of Sound,
and the Holy Stream of Light were never born and can never die.
Enter the Holy Streams ... that you may reach
the kingdom of the Heavenly Father and become one with him.
More than this cannot be told,
for the Holy Streams will take you to that place
where words are no more, and even the Holy Scrolls
cannot record the mysteries therein.

And then the Elder was quiet,
and a great stillness stole over the Brothers,
and no one wished to speak.
The shadows of late afternoon played on the river,
still and silvery as glass,
and in the darkening sky could faintly be seen
the filigree crescent moon of peace.
And the great peace of the Heavenly Father
wrapped them all in deathless love.

