



The Theo-scientist

Editor - Er. R. C. Patnaik

For the year 2023

THE THEOSOPHY - SCIENCE RESEARCH ASSOCIATION, ORISSA

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ABOUT OURSELVES

We are no occultists, no mystics either, nor do we claim to be Scientists, but we are students of occultism, mysticism and science. We know how Theosophy abounds in occult doctrines and mystic statements which reportedly pertain to deeper levels of life's experience. Being ancient, it has no reference to modern scientific terms, hence is not likely to be scientific.

The theosophical mysticism has an appeal to the religious and emotional section of the lay-men who blindly take all Theosophical doctrines for granted and interpret them in their own ways. It is the intellectual who however, encounters difficulty to grasp the highly abstruse and often anthropomorphic concept in Religious Literature. On the one hand, the absence of any experience in every day life having resemblance of any degree to the occult concepts makes him suspicious of the Theosophical Truths. On the other hand, modern science which is considered in the eyes of Theosophist to be related only to the fringe of the vast occult domain has been so much specialised and embodied by such wonderful advance in technology that its interpretation and inferences about the life and the universe are taken for axiomatic truths by the intelligentsia. The result is that science and occultism remain wide apart.

Leaving aside the personal experiences of true occultists, mystics whose number must surely be very small, it is difficult for a common man to understand those occult truths with his frail and feeble mind though it is very essential in modern times. For his understanding depends on his very attitude of life and his relation to his environment, it is therefore highly imperative that a relation, if there be any, however distant, has to be searched for between science and occultism. This seems expedient to many students of both the fields of enquiry. They hold that the realm of Nature being multidimensional is very vast. A phenomenon in a three dimensional world may appear quite occult to conscious being confined to two dimensional world. So, too higher dimensional objects may appear to us to be occult. Yet they may be objectively imagined by analogy, if not demonstrated by scientific methodology. Could there be any analogous principles or laws of nature operating at various fields of energy physical, vital and psychological? If so, such principles may provide clues to bridge the gap that exists between occultism and theoretical science. This may make occultism more intelligible for the time being and keep science from hasty conclusion by denunciation.

There are innumerable occult facts and phenomena described in cryptic language or by symbols and signs. To decipher all the secrets and present

them in a meaningful language is a herculean task on the part of non-occultists as we are. Equally or even more difficult is the task of going through details of scientific investigation in ever expanding area of search and catching up clues having metaphysical relevance to occultism. Thus being fully conscious of our limitations in the two spheres of our endeavours we strive to collect some comparable data out of their immensities available in either world and show their affinity with each other. In so doing, it is intended to caution on the one hand the members in the Theosophical circle who are emotionally carried away and indulge in interpreting Theosophical truths with what are not scientific at all and to provide on the other hand some materials to the skeptic scientists to ponder over and evoke their intuitional faculty.

(Reproduced from Research Centre Journal, 1977, London)



Acknowledgement

This journal "The Theo-Scientist" is supposed to be published in the month of January and July of each year, but being affected by the recent pandemic we could not bring it out for the last two years. Now, that we are limping back to normalcy, it will be our fore-most priority to deliver this Journal in the month of January every year.

We express our gratitudes to all those contributing articles, members of Utkal Theosophical Federation and all members of Theosophy-Science Research Association, Odisha for their active support and participation.

We have undertaken activities to Interact with and involve academicians / students / teachers / scientist / professionals of various institutions to march ahead hand in hand ensuring required harmony in the field of Science and Occultism. We believe that the above said 'Harmony' shall open up windows for Wisdom that may help lift slightly the corner of the veil over the mysteries shrouding the un-explained laws of Nature and the Occult powers latent in Man.

While thanking profusedly our learned readers we state with humility that, despite all our efforts and attention some mistakes might have been inadvertently over-looked for which we beg pardon from all concerned.

– Editor

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Editorial :

Wheel of Harmony

More or less we are commonly aware of three principal sources of knowledge, such as Religion, Philosophy and Science which have been transforming Man-kind assuredly through various stages of natural - evolution to reach the present status of modern Man. As a result human intellect is maturing up associated with widening of consciousness.

Religion in brief guides us in a path pre-fixed by ancient Prophets, Masters, Hermits and Sages instilling in us proclaimed moral codes of conduct traditionally handed over from Generation to Generation. The inner most holy messages of each Religion passes through wear and tear in course of time and get blended with social superstitions causing lack of faith and misunderstanding in the minds of practitioners / followers. In accordance with the check and balance system of the Divine Plan, great Prophets in ancient ages had incarnated on earth to bring back Harmony for worldly existence.

Philosophy on the contrary, systematically analyses data / information / messages from history, mythology, geography, astronomy and ancient literatures pertaining to different religions or otherwise in their own wisdom and prepares logistic models out of the abstracts of the above to

explain the secrets behind Creation and Cosmos etc in the Divine light.

In the above two methods, persons who are spiritually motivated usually develop faster in the ladder of evolution. Resorting to laid-down spiritual practices, they gradually get promoted to function at higher and higher level of consciousness.

But in reality, remaining majority of the multitude who are merely inquisitive than accepting things as it is seek knowledge from observation through human sense organs using their intellect, ingenuity and so called modern education. Here comes the roles of 'Science', which was born with the primitive man and developed as the physical needs of man increased multifold with time to appear ultimately as Modern Science now a days.

As such science has been serving an essential role in educating one and all through direct physical perception winning the faith of the mass. The data obtained through various physical experiments, when examined statistically, give birth to hypothesis, rules and mathematical conclusions which in turn sometimes rarely / slightly lift the corner of the veil of Cosmic secrets, when a scientist passes on to a deep meditative state even, not self-conscious, while pursuing an intriguing

subject of science. With a strong feeling of selflessness his intelligence / consciousness experiences a transitory quantum-Jump to reach a higher plane of cosmic energy where his consciousness perceives the solutions to the problems long sought after effortlessly. Scientists like Galileo, Archimedes, Newton and Einstein (father of modern science) have all experienced such intuitive divine surge unaware which has benefited mankind.

In this regard, it is worthwhile to mention certain acknowledgements of great scientists.

- (a) Lord Kelvin one of the world's greatest physicists has made the following statement "One is forced by science to believe in God."
- (b) Sir Isaac Newton said, "I do not know what may appear to the world, but to myself I seem to have been like a boy playing by the seashore and finding a pebble which the great ocean of Truth lay all undiscovered before me."
- (c) Dr. Albert Einstein said, "I believe in God-who reveals himself in the orderly harmony, of the universe. I believe that intelligence is manifested throughout all Nature. The basics of scientific work is the conviction that the world is an ordered and comprehensible entity and not a thing of chance. When I sit here and watch the mighty ocean. I can imagine the treasures hidden below the bed of

the sea, when I see the clear blue sky above, I feel sky is the limit, when I open my eyes around I see the wonders and beauty of nature. Science must learn to live with harmony with all these magnificent gifts of God."

- (d) Albert Einstein said, "My religion consists of a humble admiration of the illimitable superior spirit who reveals himself in the slight details, we are able to perceive with our frail and feeble minds. That deeply emotional conviction of the presence of a superior reasoning power which is revealed in the incomprehensible universe, forms my idea of God".

Now it is obvious that scientists admit their limitation since there is no provision in science to investigate into Astral, Mental, Buddhist or Atomic-matters of universe which are too subtle to be perceived by sense-organs or precision-equipments prepared by Scientists. Though Science is apparently atheistic, it should not be understood as inimical to Religion and Philosophy. Rather it works as the greatest ally in furthering our object of imparting knowledge and up-lifting intelligence quotient of general public.

Obviously Religion, Philosophy and Science follow different paths to reach at the Truth and Realities. But all those concerned have to believe that the very Soul/core/skeleton of each is absolutely one and same, that is spirituality / Brahman / Theosophy / Brahma Vidya. And then these three

Wings of human endeavour can work as solid spokes of the Wheel of Harmony that leads them to the inner court of God.

Having discussed all these, now we are fairly qualified to travel to a region where a scientist in the field of science or a Disciple (Sadhaka) in the field of Religion / philosophy transcends the normal level of physical consciousness and dwell in a state of super-consciousness for a short / long duration of time, as the case may be depending on depth of concentration and purity at heart.

This state of being can be understood as intuitive mental state or occult state. Very devoted scientists almost madly engrossed in their research are sometimes privileged with the blessing of Divine-Grace to reach this state of mental super consciousness which enables them to discover precious Truths / Realities out of the blue while observing day to day normal worldly activities / phenomena in Nature.

Similarly disciples of great masters (Guru) or spiritual Sadhakas by virtue of their absolute loyalty (Bhakti), Meditation and 'Yogic'

practices reach this transcendental state for much longer duration with extra sensory power of perception, clairvoyances and much wider sphere of super-human consciousness.

This above said process in spiritual platform is known as Occultism and such 'Sadhaks' are called 'Occultists'. Madam Blavasky (founder president of Theosophical Society), Dr. Annie Besant and Bishop Leadbeater, (both patrons of Theosophical society) were great occultists, who have enriched the human knowledge-banks even in the field of modern-Science though none were even students of basic science in their respective academic career.

Occultism is a vast domain for conducting research and further study with specific tools of 'spirituality' and an ardently devoted inquiring mind. Before this editorial extends too-long we are obliged to our learned readers with gratitude to give it a rest here till our next issue of "Theo-Scientist".

In the mean time let us practice and profess altruism and prepare ourselves spiritually more acceptable to the un-manifest Almighty such that we can be used as extra spokes to assist the wheel of Harmony that rules.

R. C. Patnaik



A LIGHT ON "DIVINE GIFT"

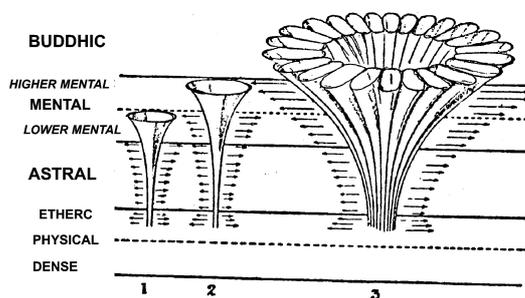
Prof. C.A. Shinde

Librarian, Indian Theosophical Society Hqs., Adyar

PART 1

Individualization is a Divine Gift. This Gift human kingdom received in the course of evolution. Since then man was the living image of the Divine plan i.e. God's plan, Evolution. By such gift he became the elder brother to all sub-human kingdom being with special immortal virtues like **Love, Compassion, Joy and Equanimity**. His manas principle became active with the tool of mind to take jump into (Arupa World) or invisible world. His hands became free from the job of locomotion to extend his helping hands to his co-brothers & younger brothers of sub-human kingdom.

Left brain & Right brain got connected by number of nervous connections called corpus callosam to balance the subjective and objective worlds. Thus man became a Nature's free agent to work for others as servant



of Light. Man is thus a complex self-conscious species having spirit at one pole and matter at the other pole connected by mind or intellect.

So he has to prepare his mind with the spirit energy within to activate and purify the matter of vehicles of spirit. So in one sense he is 3 folds. Spirit, Soul & Body.

Soul is the vehicle of spirit to act in invisible world/spiritual world. Body is the vehicle of soul to work on earth material world. So in one sense man is active but separated at mental emotional and physical level. Because our thoughts are different, emotions are different, forms are different. With these differences we must develop our understanding with our rational thinking capacity to the fact that self as separation is an illusion at lower worlds and enlighten to conceive Unity.

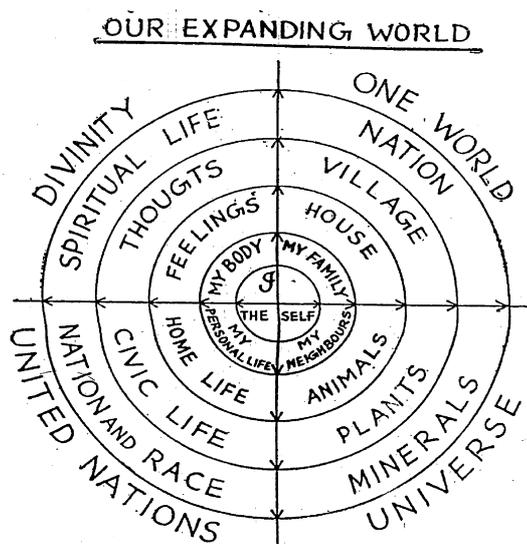
It is interesting to know that our skeletal system — the system of bones is our Divine gift received from Nature by serving as minerals. Our lymphatic system by lymph nodes and lymph that circulate all that we have is a Divine gift received from Nature by serving in Vegetable kingdom. The perceptive

quality of our nervous system or brain is the gift of Nature as we served selflessly in Animal kingdom and got evolved into selfconscious human.

Now in human kingdom we need to sacrifice our personal life to serve others consciously — to evolve into superhuman kingdom. But in this human kingdom we are having choice to live for others or to live for Unreal or to Real. That is our prayer “**lead me from unreal to Real**”. Mind is the tool — which is the great slayer of the Real — so H.P. Blavatsky in Voices of the Silence said ‘**slay the slayer**’. You know what happens when he slays the **Slayer-Voices of the Silence-say**. His form appears unreal and his fleshy eyes become blind to all illusion.

Self knowledge is essential to jump from unreal to real. You know there are great illusions : Space Time and Self. Space as dimension is an illusion. Infinity is vision. Time as succession is an illusion. Eternity is vision. Self as separation is an illusion Unity is vision.

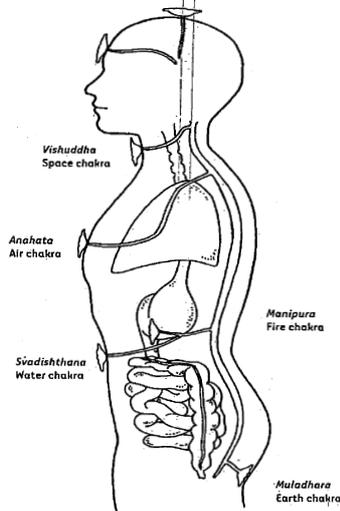
So our fleshy eyes must become blind to have the vision of infinity eternity and unity. For this spiritual eye must be opened as spiritual eye is watchful eye that observes with love, unity & compassion. Soul eye is the 3rd eye. Pineal eye, we have it but in dormant condition.



Why Lunar Pitris — Sent to the Earth

We don't know much about it. Our humanity was in part the lunar humanity. The perfected lunar entities or Pitris seemed to come from like Gods related to us. We are in reality strangers to our spiritual selves because of our own personality limitation.

Whatever unfoldment takes place in our consciousness is not limited to our individuals but for the whole humanity. So those who have come over here they are here for helping the humanity. Perhaps they were the best fitted to make the model for the bodies we needed to understand subtleties.



Example B: The source of the first five chakras' energy emerging from the central channel within the spine and emanating outward.

Part II

Human Evolution – as we study in Theosophy – that the first two races were without form or shape.

Form we got in 3rd root race and at the end of this race sexes were separated

To have a firm skeletal system is essential – and we got it from the mineral kingdom – so we need to be grateful to the kingdom all the while. Teeth and bones are the important relics usually preserved.

Then we got LYmph and LYmyphatie system to circulate Lymph as immune system we got it from plant kingdom for which we again need to be grateful to plant kingdom.

DMT–Molecule Dimethyltryptamine molecule is wide spread through the plant kingdom which is used in psychedelic experiences. This amber substance is also called spirit molecule and is also present in cerebrospinal fluid (CSF)

The Founder of Polarity theory Rondalf Stone stated that – Soul Swims in the CSF.

Dr. Andrew of American School of osteopathy – said CSF as an intermediary in the moment of Divine Intelligent Such a C.S.F – in which entire CNS is immersed.

It is outside the brain as well as in the cavities of the brain (Ventricles)

This CSF flows down up to the root chakra where there is kundalini energy or serpent fire.

We as human beings knowing very little about this Kundalini energy.

We speak about 3rd eye soul eye in Biological terms as 3rd Ventricle.

3rd ventricle – has pineal gland at the back, pituitary body in front and hypothalamus and thalamus on the either side. This is also called as the cave of Brahma filled with C.S.F.

C.S.F. is a vehicle for

1. Transmission of information to the brain

2. Transports nutrients and hormones to CMS
3. Instructor of the stem cells – whether to multiply or differentiate
4. It is a manager of heart rhythms
5. It is a regulator of appetite
6. An eliminator of waste
7. Shock absorber, of the brain, Pineal and Pituitary glands.

We also know that – Our ancestral CSF was Sea water – and that evolved – to receive signals from the environment.

Then question comes to our mind, could this CSF (a mysterious fluid) be the fluid conductor – sources of energy into our bodies?

Could this essence be the Divine Spark that allows us to be aware of our beginner ?

Because the inner walls of this 3rd ventricle lined by Ciliated cells – with receptors to monitor information, light, growth factors, hormones, flow, movement and vibrations.

We know now that water has memory power then why not this mysterious fluid? Which can absorb, store and transmit energy.

As we know now breath is energy vehicle so we can manipulate and accelerate the movement of the C.S.F. through the breath control.

Lauren Buys (South Africa) is a Kundalini Global Yoga teacher now resides in New York, writes about body blocks or bandhas, Kumbak Rechak holding the breath and releasing breath. By holding breath creates pressure against the pineal gland and as the breath released – a stimulation of the cilia takes place and a diethyltryptamine (DMT) and serotonin are released from Pineal gland.

I. The Lower gate opens. This allows the opening of thalamic gate at the brain stem which is usually closed – which is connected to Reticular Activating System or RAS . The RAS is responsible for our levels of awareness as it receives stimulations from our senses from what we see, what we hear. If we were in bed at night and heard tinkering at our front door or something ratting at the window our RAS would be responsible for that awareness.

II. When the above thalamic gate opens to RAS when senses are closed – then energy from the power centers of our body moves to brain and Gamma-brain-waves patterns - state is observed. Our spinal columns are made up of 33 vertebrae. No 33 has many sacred associations' Jesus Crucified at the

age of 33 times Jacob Ladder name is mentioned Earth to heaven.

Included in 33 there is sacrum. Sacrum consists of 5 fused vertebrae. Could these 5 fused vertebrae represent the five senses – brought under control in orders for the thalamic gate to open ?

DMT and Serotonin pineal gland secretions called Milk Honey Pineal gland filled with such Milk and Honey.

Clean Life — leads to Secrete

Dopamine — Reward Hormone that Sense of Appreciation Develops

Open Mind — leads to Secrete

Serotonin — Mood stabilizer Hormone Selflessness

Pure heart — Love Hormone

Oxytocin — that embraces all in One

Eager Intellect — leads to Secrete

Endorphin — pain killer



SCIENCE AND THEOSOPHY OF JYOTISHA CHAKRA (ZODIAC)

Dr. Chittaranjan Satapathy

President, UTF

The Ravi-Marga or ecliptic is the plane of Earth's orbit around the Sun. From the perspective of an observer on Earth, the Sun's movement around the celestial sphere over the course of a year traces out a path along the ecliptic against the background of stars. Ecliptic is a great circle on the celestial sphere representing the sun's apparent path during the year, so called because lunar and solar eclipses can only occur when the moon crosses it. The alignment of three celestial objects is known as a syzygy. Apart from syzygy, the term eclipse is also used.

The zone or belt in the star dome, through the middle of which runs the Ravi-Marga or the Ecliptic, is called the Jyotisha Chakra or the Zodiac. It is 3600 long and 160 broad. The ecliptic forms the center of the zodiac, a celestial belt about 16° wide in latitude through which the Sun, Moon, and planets always appear to move. Traditionally, this region is divided into 12 signs of 30° longitude, each of which approximates the Sun's motion in one month. In ancient times, the signs corresponded roughly to 12 of the constellations that straddle the ecliptic. These signs are still used in modern terminology. It may be noted that the

"First Point of Aries" was named when the March equinox Sun was actually in the constellation Aries; it has since moved into Pisces because of precession of the equinoxes.

The use of the Zodiac and its divisions in astronomical sciences from time immemorial by different nations is well known. Perhaps for the first time, an early theosophist of great calibre, who shared the same Master with HPB and for whose deep spiritual knowledge HPB had great regard, T. Subba Row delved into the esoteric significance of the Zodiac signs in a long article published in the November 1881 issue of The Theosophist.

The commonly used names of the Zodiac signs are as follows:-

1. Mesha (Ram or Aries)
2. Rishava (Bull or Taurus)
3. Mithuna (Twin or Gemini)
4. Karkataka (Crab or Cancer)
5. Simha (Lion or Leo)
6. Kanya (Virgin or Virgo)
7. Tula (Balance or Libra)
8. Vrishchika (Scorpion)
9. Dhanus (Archer or Sagittarius)

10. Makara (Crocodile or Capricorn)
11. Kumbha (Waterbearer or Aquarius)
12. Mina (Fish or Pisces)

It is generally assumed that these names derive from the figures which the stars in the constellation in the respective Zodiac division form. But this is not so in every case. A closer look at the names used for these signs reveal deeper and subtler meanings. Same rules as are required to understand hidden meanings of our myths and allegories are also required to be applied here.

1. **Mesha:** The synonym for Mesha is Aja. It literally means which has no birth. Upanishads use the word Aja for Brahman. The first sign is thus intended to represent the self-existent, eternal Brahman.
2. **Rishava:** In the Upanishads and in the Veda, the word is used to mean Pranava or Aum.
3. **Mithuna:** As the word itself indicates, the sign is intended to represent the androgyne Brahman, the Ardhanarishvara.
4. **Karkataka:** Converting the syllables to corresponding numbers as used in Mantra Shashtra, the word converts to four. Therefore, the sign is

intended to represent the sacred Tetragram, the Parabrahmataraka. When the Pranava is resolved into four matras, they represent four states namely Jagrat, Swapna, Sushupti and Turiya Avastha corresponding to four states of Brahman namely, Vaisvanara, Taijasa (or Hiranyagarbha), Prajna and Ishvara,

5. **Simha:** This fifth sign is the putrasthana or son's house in Hindu Astrology and hence correctly represents Jivatman - the son of Paramatman.
6. **Kanya:** It means a virgin and represents Shakti or Mahamaya. This sixth sign indicates that there are six primary forces - Parashakti, Jnanashakti, Icchashakti, Kriyashakti, Kundalinishakti, and Matrikashakti.
7. **Tula:** Converting the syllables to numbers, this sign is converted to 36 and represents 36 tattvas.
8. **Vrishchika:** When the sun is located in this division or Rasi, it is called Vishnu. It literally means expanded - expanded as Visva or the Universe. Hence this sign represents the Universe in divine conception.

9. **Dhanus:** When the syllables are converted to numbers, the number nine is obtained which represents the nine Brahmas - nine Prajapatis who assisted in constructing the material universe.
10. **Makara:** The letter Ma is equivalent to number 5 and Kara means hand. As in the case of Tribhuja which means a three sided triangle, makara can be understood as Panchabhuj or a Pentagon.
11. **Kumbha :** When converted to numbers, the word is equivalent to number fourteen. It therefore represents Chaturdasha Bhuvana or the 14 lokas.
12. **Mina:** When converted to numbers, one gets 5 and it intends to represent Pancha Mahabhutas or 5 primary elements.

These are only brief indications of what the names of 12 Zodiac signs imply. For a fuller account as also the details of rules applied to interpret these signs to uncover their hidden esoteric meanings, the readers are invited to study the original writing of Subba Row available in different publications of his collected works. He brings to light

clearly the connection between the ancient theory of creation and the hidden meanings embedded in the zodiac signs.

The summary below shows the connection with the stages of creation and zodiac signs interpreted above:-

1. The self-existent eternal Brahman.
2. Pranava (Aum).
3. The androgyne Brahman.
4. The sacred Tetragram - the four matras of Pranava - the four avasthas and four states of Brahman.
5. The Jivatman
6. The six forces of nature
7. The thirty six tattvas
8. The universe in divine conception.
9. The nine prajapatis creating the material universe.
10. The material universe bounded by pentagons.
11. The fourteen lokas
12. The five elements.

The purpose here is not to explain the ancient theory of creation but to show how scientific symbols such as the Zodiac signs used in astronomy were cleverly designed to narrate the esoteric concepts about creation in hidden language.



FLOW: MECHANISM OF LIVING IN THE PRESENT

Prof. F.M. Sahoo

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The present moment is all we are really guaranteed. Enjoying this present moment is a surer way of attaining peace and happiness. Flow is a state of intense absorption and involvement with the present moment. Have you ever been absorbed in what you were doing - painting, writing, conversing, fishing, playing chess, praying, web-surfing - that you completely lost track of time? Perhaps you failed to notice that you were very hungry or your back ached from sitting for so long? Did nothing else seem to matter? If the answer is yes, then you have experienced a state called flow.

Coined by a psychologist, Mihaly Csikszentmihalyi, flow denotes a state of complete absorption in what one is doing. You are totally immersed in what you are doing, fully concentrating, and unaware of yourself. The activity you are performing is challenging and engrossing stretching your skills and experience. When in flow, people report feeling strong and efficacious, at the peak of their abilities, alert, in control, and completely unselfconscious. They do the activity for the sheer sake of doing it.

Csikszentmihalyi argued that the good life, a happy life is characterized by flow, by "complete absorption in what one does". The key to creating flow is to establish a balance between skills and challenge. Whether you are rockclimbing, performing surgery, writing a story or driving on the highway, if the challenges of the situation overwhelm your level of skill or expertise, you will feel anxious or frustrated. On the other hand, if the activity is not challenging enough, you will become bored. Flow is a way of describing your experience that falls in just the right space between boredom and anxiety. Your happiness depends on your ability to find the perfect space, to extract flow from what you are doing. The situation can be depicted schematically.

		Perceived Ability	
		Low	High
Level of challenge in task	High	Anxiety	Flow
	Low	Apathy	Boredom

Benefits of Flow

Flow is inherently pleasurable and fulfilling. The enjoyment one

obtains is generally lasting and reinforcing. Flow provides a natural high that, unlike artificial highs or hedonic pleasures, is a positive, productive and controllable experience that does not cause guilt or shame.

Second, because flow states are intrinsically rewarding, we naturally want to repeat them. However, there lies a seeming paradox. As we master new skills, our experience of flow diminishes because the task at hand is no longer as stimulating. Thus, to maintain flow, we continually have to test ourselves in ever more challenging activities. We have to apply focused mental discipline in ever more challenging activities. We have to stretch our skill or find novel opportunities to use them. This is wonderful, because we are constantly striving, growing, learning and becoming more competent, expert, and complex.

One of the core ideas connected with flow experience is that we cannot allow our happiness to depend on our external circumstances, for every positive event and accomplishment we experience are accompanied by rapid adaptation and escalating expectations. Even as we attain great heights, we begin to want even more. There is no inherent problem in our

desire to escalate our goals, as long as we enjoy the struggle along the way.

The experience of flow leads us to be involved in life (rather than be alienated from it), to enjoy activities (rather than to find them dreary), to have a sense of control (rather than helplessness), and to feel a strong sense of self (rather than unworthiness). All these factors imbue life with meaning and lend it a richness and intensity.

Increasing Flow Experience

Flow opens up to a world of a very different kind, a world of thousand possibilities and opportunities. Finding flow involves the ability to expand your mind and body to its limits, to strive to accomplish something difficult, novel, or worthwhile, and to discover rewards in the process of each moment, indeed in life itself.

Control attention. To increase the frequency and length of flow experience in your daily life, you need to become fully involved and engaged. Whether it is writing a letter, doing a job-related task, or undertaking leisure activities that engage your skills and expertise. How exactly do you accomplish that? The secret is attention. William James, the 'father' of psychology

once wrote: "My experience is what I agree to attend to". This is a revolutionary thought. What you notice and what you pay attention to is your experience; it is your life. There is only so much attention that you have to go around, so how and where you choose to invest it is critical. To enter the state of flow, attention needs to be directed fully to the task at hand. When you're intensely concentrating on doing something, you're essentially directing your attention to the task (e.g., writing poems as opposed to other activities like deciding about breakfast and inquiry about time).

Maintaining the state of flow also involves the control of your attention. If the challenge is too low you become bored; your attention drifts to some other thing. If the challenge is too high, you become self-conscious. Your aim is to gain control over what you pay attention to. Hence choose contents of your task wisely.

Adopt new values. Happy people have the capacity to enjoy their lives even when their material conditions are lacking and even when many of their goals have not been reached. How do they do it? They follow certain paths. They are open to new and different values (cooking, playing, etc). They learn until the day

they die. The state of flow comes naturally to the child, but we may have to work at it.

Learn what flows. Many people believe that the conditions of work and task always generate stress while no-work condition affords pleasure. This is a wrong idea. There are many studies to show that people have negative thoughts when they are not doing anything. Hence it would be proper to select and choose activity that suits you and affords flow. With an open mind, search the task that has potential for flow experience.

Transform routine tasks. Even seemingly boring and tedious activities - waiting for the train, listening to a dull presentation - can be transformed into something more meaningful and stimulating - what you need to do is to create microflow activities with specific goals. For example, you could solve problems in your head, tap melodies to favourite songs. So, when you sit in a doctor's waiting room, your goal might be to draw a project design.

Flow in conversation. Depending on your job and lifestyle, a significant percentage of your days may be spent in conversation with others. Do you usually experience flow when you are talking with another

person? Focus your attention as intensely as possible on what the other person is saying and your reaction to his words. Do not be too quick to respond, rather, give him the space to expand on his thoughts. You may prompt him with brief follow-up questions (And then what happened? And Why did you think so?)

Smart work. One fascinating study of work found that people tend to use their work as one of three ways: as a job, as a career, or as a calling. Those who place their work in the job category essentially perceive it as a necessary evil, a means to an end - the job is needed to support them. People who report having career may see their work as means for promoting their status.

Those who see their work as calling report enjoy work and find it to be fulfilling and socially useful. It is important to recognize that people regarding their work as a calling are likely to experience flow during their work process.

While discussing different possibilities of flow experience, a caveat needs to be identified. In the process of experiencing flow, some individuals can become addict; they may ignore their primary responsibility. However, with the use of human intelligence and discrimination, people can guard against this addictive practice. Once this caveat is recognized, seeking flow experience is likely to be a source of good life, happy life.



SCIENCE AND SPIRITUALITY

Tudor Edmunds

(One of the twenty 'Papers' selected from those presented at the Theosophy-Science Seminar held at the Centenary International Convention of the Theosophical Society at Adyar in 1975.)

It is quite obvious that science solves many world problems, such as bringing help to areas of disaster in any part of the world, and by means of radio, communicating in a few minutes with any nation that is most suitably situated to inaugurate such help. Among other things, it also solves many problems of widespread epidemics, starvation, and undernourishment. But there are certain of man's personal problems where science is unable to help, and I propose to deal with these in this paper.

However, it is necessary that we should be perfectly clear in our minds as to what we mean by science, or the scientific method of approach to truth, not only in world affairs, but in simple everyday observations. For instance, many people think that a sudden abdominal pain low down on the right side is almost certainly the beginning of appendicitis, whereas it is much more likely to be a small pocket of gas which will quickly disperse. Or again, if someone is seen coming out of a public house

and walking unsteadily, the common assumption is that he is intoxicated, and yet he may simply have just twisted his ankle.

These instances of non-sequiturs where we jump to false conclusions occur continuously, and the scientific method was devised to counteract these tendencies when carrying out investigations, or making a serious pronouncement of any kind.

In studying any subject scientifically one must first record as accurately as possible what our senses carry to our minds in connection with the object under consideration. These perceptions must not be influenced in any degree by one's feelings, or by preconceived ideas, as to the cause of what is being observed; one just records everything that is conveyed through the senses, at the time the experience takes place, and whether it seems important or not. It is essential that this record should not be left till a later time, or the tricks of memory and imagination may ultimately enter into one's records and completely destroy their value.

This is done a number of time by different observers until a sufficient number of observed-facts e accumulated to be statistically significant. If these repeated observations of the same phenomenon are not continued until they are significant in number, they are useless for propounding a hypothesis as to the probable cause of the phenomenon under observation, or the probable process of how it is brought about: they simply lead to a series of non-sequitur conclusions.

If however the number of observations is sufficient to be of significance, a tentative theory can then be put forward, after critical discussion, that will fit all the observed facts without any exception.

If at any subsequent time a new fact is observed in connection with the phenomenon under consideration, which does not fit into the proposed theory, a new theory is constructed which will embrace the new observation as well as the previous ones. ~One of the most important aspects of the scientific method is the readiness with which every observer must be willing to put aside any previous theory that does not support newly observed facts.

No theory of the so-called laws of Nature must ever be regarded as a dogma, but always held tentatively

as the best explanation up to that moment, until such time as a new discovery compels a modification to be introduced into the original theory. In this way, step by step, one slowly travels nearer to the truth of what one is studying. And so it will be seen that although the scientific method, as an approach to truth, has been well thought out, it is not all-embracing but is limited to those things only that can be examined by man's five senses.

This has led to a general belief that the universe is an aggregate of matter, and that every phenomenon we observe has its origin matter. But when we examine ourselves introspectively it is obvious that there is also an invisible and imponderable universe of thought and spirit that does not enter one's consciousness through the senses but is nevertheless just as real.

An increasing number of scientists agree that there are many things we are aware of in everyday life, such as love of beauty, if sacrificed for others, and abstract thinking, that cannot be explained on a material basis, and that there is a great non-material aspect of life and mind which has a tremendous influence on all that happens. It is this aspect of life and consciousness, that Theosophy helps to explain, for when we apply the methods of science to

investigate the details of the deeper and inner aspects of truth, they only lead to chaos, and we have to limit ourselves to abstractions and generalities.

If we examine a material phenomenon with our senses, we can select words which give an exact description of what we observe, and other seekers after truth will understand exactly what we mean, I when we try to describe feelings of a spiritual, symbolic, or aesthetic nature, words become misleading and 'it is then necessary to get behind their literal meaning and sense intuitively the concept behind them.

This does not mean that everything written theosophically in other esoteric writings must be blindly accepted as truth, but that the reader should temporarily suspend judgement and hold ideas quietly in his mind for a time. This -gives the inner, intuitive aspects of his consciousness an opportunity to become involved with the ideas expressed, and if after a lapse of time his mind becomes illumined as a result, he will then have become conscious of a wider understanding of the ideas contemplated. If on the other hand he gains no expansion of understanding from his period of contemplation, he can then bring his critical faculties bear, and examine

the material scientifically, accepting or rejecting it according to the way it affects his sense of reason.

During the long period of biological evolution on this planet, it is generally agreed that when man arrived he introduced a new records of everything that is conveyed through the senses, at the time & the experience takes place, and whether it seems important Or not. It is essential that this record should not be lost till a later time, or the tricks of memory and imagination may ultimately enter into one's records and completely destroy their value.

Man introduced a new and potent evolutionary force which 'up to that time had never been manifested here. He brought with him self-conscious mind- a new energy, having the power of directing and modifying to a profound degree all living things and their surroundings throughout the globe. With this new instrument he is able 'to examine things in -minute detail, or on a vast astronomical scale. He observes relationships between things, and when he moves them about in different orders he observes their effects on one another.

By directing his mind to the world of physical matter, he has - discovered its nature and so obtained

control of stupendous forces locked up in the atoms of which matter consists. This he has been able to do in the last century alone-the merest fraction of time when we look' back on the millions of years of evolutionary progress without self-consciousness.

But with these great powers of the mind he is able to create or destroy on a vast scale. He makes forests grow where only arid sand existed before. He creates new animals and plants, as well as new chemical elements, and other physical substances of an' unlimited variety to make his life more comfortable or interesting. He also has the power of destruction on a frightening scale: from the killing of garden weeds, to the destruction of whole continents -if he wishes.

It is obvious therefore that if these vast powers are to be used sensibly, he must perforce have wisdom; but in spite of his materialistic brilliance he is morally, emotionally and spiritually under-developed. So we have to distinguish between technological excellence on the one hand, and on the other the development of capacities of greater importance, and of an entirely different kind, which come from much greater depths of consciousness than the concrete mind.'

It is well established that intellectual development, however - great, does not of itself bring wisdom or make a person more lovable than those who have had less scholastic training, whether we are concerned with our own day, or with former times. The high 'standards of physical living' which science has placed at our disposal do not save us from the processes of decadence and folly, and it is a delusion to think that material improvement for everyone will of itself bring happiness and inner contentment. Luxury tends to breed indifference, and freedom without insight often leads to lawlessness.

One of the great truths that Theosophy bring's to the world is the essential unity of the whole of the human race irrespective of colour, nationality, or capacity, and unless we recognize this unity and accept it in the comparatively near future, we are likely to destroy ourselves and all living things around us.

If man is to survive ,he must progress beyond the material level & has reached, turning his mind to the creation of quality of character, rather than the increase of size and quantity of material things. He must needs take a new viewpoint on the purpose of human existence, studying himself and his fellows as a whole, and entering into the higher reaches of his

consciousness with its hidden potentialities of creating harmony, and finding wisdom.

Human consciousness expresses itself on three different levels. The lowest deals with objective things and appearances of everyday life - the ordinary mind. Then there is a higher level that deals with abstract concepts and generalities, such as beauty, infancy, or triangularity, rather than a beautiful object; a child, or a particular triangle. Beyond this there is a still higher intuitive level only slowly developing in man, which is able to involve itself with an object or idea, sensing it in its wholeness, and understanding its true quality without going through the laborious scientific method examining it detail by detail and finally summarizing all these observations. It is this highest kind of consciousness that is nearest to the spiritual and eternal centre of our being which enables us to sense the quality and truth of anything we contemplate, and it is in order to help mankind attain this highest state of consciousness that the various schools' of yoga have been founded.

Owing to the overdevelopment of the lower mind and the very small development of this higher intuitive faculty, man's mind seems unaware of his true spiritual nature and is

easily attracted by violent sensations, and anything which is exciting, seductive, and pleasurable. Man has in fact reached a point of danger where it is imperative that he should turn his mind towards his real inner nature and change his sense of values or he will meet disaster.

Unfortunately this is not quite as easy as it sounds for we use the term "values" in many different ways, and speak of moral, aesthetic, social and religious values; moreover, we often mistake preferences for real values, and so we find that our sense of values is greatly influenced by fixed ideas, also by conventions, prejudices and the goals towards which we think we ought to strive-be they wise or otherwise.

Thus, as new discoveries are made which cause man to change his social habits, certain values are also bound to change, but the latter are temporary values, and should be regarded as of minor importance. How we deal with changes due to new discoveries should therefore always be tempered by the theosophical knowledge of ultimate purposes, and not be seen only from a short term basis. In this way social problems would be avoided which at present tend to keep on arising owing to our short-sightedness when looking into the future.

There are certain fundamental goals which are expounded in the ancient wisdom tradition that apply to man at all periods of his evolution, and in any social culture where he may happen to -find himself.

First, that he is an eternal spirit, and that the purpose of physical -life is to teach him how to enable that spirit to grow until he reaches human perfection. When therefore he is faced with any kind of choice or problem, the factor that should enable him to decide what line to take, will be that which appears to be most likely to help his spiritual growth, and his character generally.

Such a choice will not necessarily be the most spectacular, or the most fashionable; in fact, his sense of values will differ greatly from those who consider love of power, accumulation of wealth, or a desire for adulation the most important goals in life; and by exercising careful discrimination in all his decisions he will gradually develop increasing wisdom.

He will always choose those paths that lead to moral, emotional, aesthetic, and intellectual satisfaction, and since each man has a responsibility to the rest of humanity, as well as to all other living things on this globe, he will avoid taking any line of action that he thinks will be detrimental to other creatures in its ultimate result.

The next great teaching is that each person is entirely responsible for his own growth as well as for his future, and when St. Paul said "As a man sows, so shall he also reap ", he was uttering a profound truth of Nature that is found in one form or another in all ancient ethical teachings;

We are the makers of our own destiny, and the happiness or sadness we experience are the direct results of our own previous thoughts, feelings and actions. We are therefore free to make our future just what we will, with the absolute guarantee of a law of Nature. If we choose wisely, our future will be one of increasing happiness and inner spiritual contentment-a state we can obtain in no other way. If we choose unwisely, we shall create future difficulties for ourselves that will come to us as rectifiers of the imbalance we have created, and will show us how to restore harmony in our lives once more.

This great universal law of action and reaction which in the East is called Karma, is very much misunderstood and misinterpreted in western countries.

It is the great law of equilibrium and rectification which is said to exist on all planes of nature throughout the universe. It determines that when a force of any kind is endangered, whether it be a raindrop hitting a stone, a vast star exploding, an act of human

compassion, a reaction is created which works in the opposite direction, and is of exactly the same nature, and of the same magnitude, as the original force, and so a state of equilibrium and harmony is restored in place of the changes brought about by that particular force in the first place. In the words of Isaac Newton, action and reaction are equal and opposite ". If this were not so, the universe would be in a state of chaos since a fixed quantity of energy would sometimes create a big reaction and at other times -a small one. We would never know the result of any action we planned until after it had happened, and all the laws of nature as -we know them today would be completely arbitrary.

As I have already mentioned, man lives on three planes of nature simultaneously: (1) that of spirit; (2) that of mind and feelings; and (3) that of the gross physical; it follows that he will create karmic changes on each of those- three planes whenever he performs an action, because linked up with that action are the direction of will, or spirit, and also thoughts and feelings of some kind.

Since these three planes are of distinctly different orders, their reactions are confined to their own particular plane, the physical reaction being purely physical; the motive accompanying it will bring a reaction

of thought and feeling; while the spiritual content will cause a reaction of some degree of wisdom. Moreover, it is obvious that the actual percentage of each of these factors can vary in every original action.

The motive, for instance, may be - of a high order, and will -bring a reaction of inner harmony, but the spiritual direction might -be weak and clumsy, bringing a sense of confusion, in its reaction, while the physical component might not be the best way of carrying out that particular action, so that the final result or reaction would be physically unsatisfactory to some degree.

One can see from these examples how absurd it is to regard -Karma as the law of punishment for wrongdoing-a mistake so -often made. One might just as well believe that the law of gravitation punishes us for carelessness by breaking a leg when we slip on a banana-skin. Karma, like gravitation, is a state of being in the universe and administers neither rewards nor punishments, but only brings about ultimate harmony and perfect justice.

If we find that a certain line of action is always followed by -some kind of suffering, whereas another line is followed by happiness and a feeling of satisfaction in work well done, we learn discrimination from

these karmic experiences, and gain a fragment of wisdom. In this way we slowly grow spiritually.

It is sometimes said that the wicked flourish and that good people suffer. However, a little thought will show in most cases that this is a superficial and shortsighted viewpoint. The wicked may appear to flourish at times, but it is always of a temporary nature, and often they are discontented deep down within themselves even when superficially they appear to be otherwise.

Sometimes it happens that a debt one owes to society can not be repaid karmically in the lifetime when it is incurred because the circumstances for repayment are not suitable. The debt is hence held over until a future life on earth. It may happen that the most suitable circumstances for repayment may arise at a time when the individual has grown in character, and is living a useful life then he has to go through a period of difficulty and suffering of some kind, his contemporaries may wonder why such a good person should suffer. But if they had a longer vision they would be the common sense of an old debt being repaid, and the sufferer gaining wisdom from the experience.

From time to time we also see people suddenly coming into good

fortune and happiness without apparently having done anything to deserve it. Such people, however, are not being given a gift by a capricious God, but once more are simply receiving a debt owed to them which could not be paid in the past for some reason, but which comes to them when circumstances happen to be suitable.

Thus justice is done, and we all reap the results of what we have sown in the past; a past that may be recent or distant, the time factor having to fit in with changes of place, people and sculpture.

These are some of the problems in everyday life which science is unable to explain, and for which Theosophy offers a possible explanation.

In this present age of great technological advancement the outstanding discoveries of science have tended to make us regard them as ends in themselves, and so altered our lives as to create desires for more and greater technological comforts. But we are beginning to realize that blind scientific advancement can lead to -massive pollution of the soils, the rivers and seas and the very air -surrounding our globe. And if the human race is to survive, -society must therefore be willing to accept responsibility for the

welfare of all mankind. It must exert its influence over the activities -of scientists, encouraging research into all fields of major importance, but directing its own action in such a way that all new discoveries are used for the wisest purposes only, since it is not the scientists but the community which is responsible for what is done with scientific discoveries.

When we look back at some of the disasters that have arisen as the result of scientific discovery, it will probably come as a surprise to many to learn that "it was the scientists in the Manhattan Project who tried to prevent the development of the hydrogen -bomb; and the Gas Warfare group at Cambridge before the war did much to prevent the use of chemical weapon.

Having made very great mistakes in these and other fields, and having accepted the discoveries of science and technology for its own material benefits, society is now asking scientists to get it out of the mess it has created. It uses the argument that if scientists can land men on the moon without mishap, they certainly ought to be able to solve the problems of society. But this is a complete -non-sequitur since the problems of science and those of society are of a totally different order. The one deals with the study of things while the other is concerned with the

problems of life and intelligence.

For a long time society has been ready to accept with avidity any new discovery that panders to its personal pleasures or desires; its comforts and immediate entertainment; or its national prestige and power of dominance over others. It has accepted these things - uncritically, with its attention turned inward on itself, and without any consideration of long-term difficulties that may arise as a result of its self-centredness.

It is here where theosophical values need to be implanted in society and everyone encouraged to cultivate a sense of self-awareness and personal responsibility at all times if further and greater disasters are to be avoided in the future.

There is a very ancient teaching that all life, from the microbe to man, is one, though expressing itself in different-ways, and various degrees of complexity. All living nature is thus seen to be one vast unit, so that whatever affects one part affects the whole.

This thin mantle of air, water and soil around the earth, in which all earth's living creatures exist, has been described as "the 'biosphere ", and man, like all other organisms, depends for his existence on the oxygen, food and shelter that the

biosphere provides. However, he has an intelligence enabling him to control the biosphere as he wishes, which places upon him a grave responsibility, not only for his own future, but also for the future of every other creature in it, and for the "state" of the earth, air, or water which houses them.

Man's short-sightedness in regard to the biosphere has manifested itself in various ways, sometimes causing unnecessary destruction in his blindness, and at other times through deliberate intent, as in war. There are times, however, when his aims are constructive, but because of his lack of imagination and a desire for quick results, his actions often end in - destruction.

An outstanding example of this kind has been his carelessness in allowing masses of plant fertilizer to escape into rivers and lakes, thus unwittingly stimulating the growth of water weeds that have then clogged the ducts in hundreds of hydro-electric power stations, lit North America, causing them to close down or work at a highly reduced capacity.

Sometimes the final disaster of a well-meaning project only comes about after a long and roundabout chain of new conditions has been created, which could have been prevented if more patience and

foresight had been exercised at the beginning.

A few years ago, a malaria-infested district in Bolivia was treated with D.D.T. in order to kill the mosquitoes which carried the malaria infection. The project was entirely successful, and malaria was eliminated from that district. Some time later, a severe epidemic of typhus arose in the same place which caused -numerous deaths and greatly puzzled the scientists, as typhus was entirely unknown there before that time. Eventually it was found to be due to a large invasion of a special type of mouse from the jungle which had lice in their coats carrying the typhus bacillus. The mice had multiplied because of a reduction in the cats of the district, who in their turn had died from eating the birds who had eaten the mosquitoes that had been poisoned by D.D.T. So that the very commendable action of abolishing malaria from that -: district was responsible for an epidemic of typhus, a disease which had never occurred there before.

Many other serious difficulties have arisen through trying to solve one problem in isolation, without examining its ecological -relationship to all other factors in its environment. In this way, by upsetting the natural

balance of living things in a community, new difficulties have been created by man, showing the fundamental importance of regarding the biosphere as a living unit, and not -a collection of isolated systems.

And so we come to man himself, the chief occupant of the biosphere, who tends to forget that he is only a single organ in that great living unit, and that anything he does affects the whole. -So blind is he at the present time that he fails even to recognize the unity of his own species, and frequently indulges in restrictions and conflicts with his own kind, not realising that in so doing he does harm to himself. It is as if each valve of a living heart decided to work independently, and at times in deliberate opposition -to all the other valves, and yet expected the heart to function -harmoniously.

But so many of life's greatest mysteries cannot be explained scientifically, and it is here that

theosophical teachings come like the beam of a searchlight illuminating the darkness. They provide a reasonable explanation of so much that hitherto has been inexplicable, bringing a deep sense of intellectual satisfaction, and filling in gaps that science has had to leave in many of her explanations. Theosophy also shows man's need to develop his moral and spiritual nature to the same degree as his ability to wield the great forces of nature whose secrets have been presented -to him by science.

Finally, Theosophy brings a sense of purpose into life, encouraging one to struggle forward in a spirit of adventure-with interest and with hope, come what may, knowing that if we continue to develop our inner nature, and allow wisdom at all times to determine our sense of values, we can look forward to a more glorious future than man has ever experienced in the past.



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A PRELUDE TO OCCULT CHEMISTRY

R. C. Patnaik

President, TSRA

Super Natural Power obtained through methodical development of extra sensory perceptions by persons with high spiritual values has always directly or indirectly guided the general human upliftment leading to gradual unfoldment of more and more latent knowledge about matter and spirit to the minutest details, which can be generally termed as Occult Chemistry. Findings of the Occult Chemistry is a simple on the spot recorded statement of what an Occultist(Enlightened Sadhaka) observed in developing adequate Clairvoyance beholding the Nuclear configuration and inter- sub-atomic activity of elements and compounds in the material world. The observations are free from human reasoning, pre-conditioning and hence are least susceptible to errors. Those are not deductive from any other acknowledged reference. Therefore its findings maintain absolute sanctity.

On the contrary, Modern Chemistry under the patronage of Scientists have been also pursuing for unfoldment of the same, basing on normal human reasoning, intelligence and information gathered or deduced

through apparent human sensory organs under conditions and limitations imposed by socio-economic and environmental factors. Therefore, its findings are conditioned, anticipatory and regarded as truth till it is proved otherwise, which is not an infrequent phenomena. Findings lack absolute-ness indicating ever continued effort by scientists to reach at the Truth, redefining the life as the endless path, perhaps more correctly the path itself.

John Dalton being regarded as the Father of modern Chemistry had postulated his Atomic Theory in 1808 which mainly proclaimed the Atom of an element as the ultimate indivisible entity and that Atoms of different elements are separately and distinctly also different having nothing in common. In the year 1895, two prominent members of Theosophical society, Mrs Annie Besant and Bishop C.W. Leadbeater reported first in a British journal "Lucifer", regarding their observation, on the structure of Proton and neutron of the Nucleus of the Hydrogen Atom, using their extra sensory perception through clairvoyance, which enabled them to see the micropsi of the

Atomic structure to the effect that,

1. Each Proton and Neutron can be subdivided into three sub-atomic particles called "Triad" or Triplets in the first stage
2. Each "Triad" is further sub divided into three sub- Triads, which are named as Ultimate Physical Atoms (UPA) or Anu in the Occult Chemistry. All such Anus are electrically charged particles having fractional charges considering traditional modern units under two major classifications such as positive and negative sub- atomic particles as mentioned below with their respective charges.
 - Positive Triad - Charge + $5/9c$ known as *u* quark by scientists
 - Negative Triad - Charge - $4/9e$ known as *d* quark by scientists
 - Positive Sub Triad or *Anu*- Charge + $2/3c$ found by occultist only
 - Negative Sub Triad or *Anu*- Charge - $1/3e$ found by occultist only The positive and negative *Anus* are identical and the mirror image of each other except in respect of following characters.
 - ❖ Sign and magnitude'of electrical charge
 - ❖ Direction of spin (Gyration)
 - ❖ The direction of flow of

incoming and outgoing force and energy. Positive Anu receives Energy from the Astral plane and let it out to outside world, where as the negative *Anu* receives Energy from the outside world and let it out to Astral plane.

Test of Ultimateness of UPAIAnu

The matter in its densest form, solid, transforming itself , to liquid state with increase in temperature and ultimately gaseous state. Further / molecules, Atoms, Protons, Electrons were found out under laboratory conditions by scientist of 19th century through exciting the atoms by bombardment through high velocity electrons (energy particles) On the contrary as observed by Occultists, it becomes Triad and ultimately UPA or Anu with identifiable mass, Energy and movement etc. Occultists Dr Annie Besant and C.W Lead- Beater, when further converged their clairvoyance, to dissect it, the UPA totally vanished from the physical world and entered the Astral plane.

How *Anu* Looks like.

The shape is spherical slightly flattened with a mild depression, at the zone, where force / energy enters. It is spinning , pulsating, and surrounded and inter-penetrated by

finer *Anus* of higher planes. (*Astral, Mental and Buddhic*). Each *Anu* comprises of ten coils laid side by side without touching one another, where as each such coil, in itself is a spiral, containing 1680 turns (T1), which can be designated as first order spiral, for our understanding. Similarly, each small Turn, of the first order, is also a spiral in itself containing seven numbers of Turns (T2), which can be designated as second order spiral. Similarly at the end, through repeated re-coiling seventh order spiral is formed, producing an appearance of tiniest pearls like dots, along an invisible string, constituting the UPA or *Anu*.

Those pearls - like dots are the constituents of the matter of the *Astral, mental and the Buddhic*

plane, though, they are themselves not matter. They are like bubbles of vapour, when generated in boiling water, indicating, water evacuated leaving the bubble empty. Like-wise the pearl like bubbles, are not matter, but the absence of matter. They are therefore merely space or nothingness(Space) floating in matter with their interior maintaining an *Absolute void*.

As perceived by viewers (Occultists) this above said *void*, is formed when breadth of the Logos blown into the *space* (compared with boiling water). This breadth is also described as the holes *which the 'Fohat', digs in the matter*, where as this void is seen and regarded as solid matter of the Universe. This is the paradox !



SCIENCE OF ATMA

Pradip Kumar Mahapatra

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The third object of The Theosophical society says- "To investigate the unexplained laws of Nature and the powers latent in man". Then naturally questions come to a member why one would investigate unexplained laws of nature as well as his own powers. On the other hand, Mystics, Rishis, Sadhus, etc have investigated and ultimately found the Truth by going beyond the self. That Truth which is the ultimate aim of all can be found within thy SELF.

In PRACTICAL OCCULTISM HPB says- There are four (out of many other) names of the various kinds of Esoteric Knowledge or Sciences given, even in the exoteric Puranas.

There is (1) Yajna Vidya, knowledge of the occult powers awakened in Nature by the performance of certain religious ceremonies and rites.

(2) Mahavidya, the "Great Knowledge", the magic of the Kabalists and of the Tantrika worship, often Sorcery of the worst description.

(3) Guhya-Vidya, Knowledge of the mystic powers residing in Sound (Ether) , hence in the Mantras (chanted prayers or incantations) and

depending on the rhythm and melody used ; in other words a magical performance based on Knowledge of the Forces of Nature and their co-relation;

(4) ATMA-Vidya, a term which is translated simply "Knowledge of the Soul of Science of Atma", true Wisdom by the Orientalists. There are three quotations which are relevant-[1] Occultism is not Magic, though Magic is one of its tools.[2] Occultism is not the acquirement of powers, whether psychic or intellectual, though both are its servants. Neither is Occultism the pursuit of happiness, as men understand the word. For the first step is sacrifice, the second, renunciation. Occultism is the Science of Life, the Art of Living. If we can live the life properly, then we can become aware of the life around us. In this connection it is proper to quote the Holy Ones.

Holy Ones says "Men who join the Theosophical Society with the one selfish object of reaching powers, making occult science their only chief aim, may as well not join it - they are doomed to disappointment". In letter no.29 Holy Ones says "to know yourselves - is the most difficult

science to learn" and it is the OCCULT SCIENCE which helps one to know thyself. For that one is to accept some points as theoretically true. They are-

- [1] There is An Omnipresent, Eternal, Boundless, and Immutable PRICIPLE on which all speculation is impossible, since it transcends the power of human conception and could be dwarfed by any human expression or similitude.
- [2] Parabrahman [the One Reality, the Absolute] is the field of absolute Consciousness, i.e. That Essence which is out of all relation to conditioned existence, and of which conscious existence is a conditioned symbol.
- [3] Spirit [or Consciousness] and matter are, however, to be regarded, not as independent realities, but as two facets or aspects of the Absolute [Parabrahman] which constitute the basis of conditioned Being whether subjective or objective.
- [4] In man there is two important concepts one is highest Spiritual Essence and lowest matter available which is linked with MIND.

[5] The MIND is the great slayer of the Real, further Voice of Silence says let the disciple slay the slayer.

[6] The Occult Science or investigation of power latent in Man by the individual can lead to realise who is Atma,

[7] The Atma is the part of Parambrahman,

Now the Humanity is not in a position to learn any thing because his mind is full, there is not a corner vacant from whence a previous occupant would not arise, to struggle with and drive away the newcomer. Therefore Holy Ones says-"Learn our Laws and educate your perceptions,. Control your involuntary powers and develop in the right direction your will and you will become a teacher instead of a learner". Therefore first be a Learner by Meditation and Self-less Service, and when one does meditation daily, regularly, his bodies and mind will be helpful in his /her attempt to become a student of Occult Science. Then time will come when one will be aware of the bodies who are the instruments of the Atma. When one knows the matter, then Spirit becomes a centre, having no circumferences nowhere. Therefore, always be a learner, helper and doer so that one day one will know 'Thyself'.

Peace be with you.



SCIENCE AND OCCULTISM

Prof. R. K. Prasad

Secretary, Bihar Theosophical Federation

There are three basic realities of existence -Man , God and Universe.

Flow of thought is derived from–

- (i) Revelations (दैवी प्रकाशन) in the case of theology (Religion).
 - (ii) Speculation-in the case of speculative philosophy.
- &
- (iii) Experimentation and Investigation in the case of Science.

But Science is confined to physical phenomena & physical methods only and ignores mind & consciousness.

Induction is the instrument of discovery in the case of Science.

Deduction is the method of enquiry and discovery in the case of Philosophy.

But Methods of Philosophy + Religion+Science is called Occultism (गुह्य विद्या)

Einstein's Theory of Relativity has made a tremendous contribution not only to scientific thoughts but also in the realm of religion and philosophy.

The attempt made in this theory to show that gravitation, electro-magnetism etc are all different aspects of a single force or principle is a tremendous step in the direction of synthesizing (lie many tattvas (तत्त्व) principles which underlie the universe into a single principle.

Einstein's Theory of Relativity deals with relativity only in its physical aspects- with the surface of the total Universe in existence- and so it must be very limited in its scope from the very nature of things. If there are subtler words and subtler aspects of the Universe hidden within the physical Universe, if mind and consciousness are independent realities of existence and the basis of the Universe , then there must be larger and more comprehensive aspects of Relativity.

The principle of relativity becomes far more complex and comprehensive when we try to take a total view of the problem instead of the limited view put forward in Einstein's Theory.

There may be no place for absoluteness in the very limited and

empirical conception of Relativity put forward by Einstein but there is bound to be absoluteness in the Occult conception which includes everything that can exist both in the manifest and the un-manifest. Just as we cannot draw or even conceive a circle without a centre so we cannot have a conception of Relativity in its total aspect without the Absolute.

It is true that Einstein, in order to develop his theory, found it necessary to consider only the relativity of motion and the impossibility of finding any standard of reference by which to determine absolute motion. According to him all motions were relative because there is nothing fixed in the universe against which the motion of a body could be measured in absolute terms. But though Einstein considered only a very limited aspect of Relativity, the idea which he put forward has produced repercussions in almost every sphere of thought and action, and more and more people are beginning to take it for granted that there is no standard of judgement available for anything and therefore everyone is free to do what he likes provided he can manage to avoid its unpleasant natural or social consequences. There are no real moral values because there is no way

of judging moral excellence, or even right and wrong. Everyone can choose his own code of conduct or do without one, and the only thing to do is to take care of that the long arm of law cannot reach him. There is no true greatness because there is no means of judging the quality of human life.

These conclusions are inevitable as long as we take the Universe as a vast chaotic mass of galaxies and stars scattered in boundless space and unlimited time with no centre, no origin, no goal, no basis, no standard of reference to determine the position of anything with respect to time and space. But the real fact discovered by the reliable methods of Occultism is that the Universe is not at all what science with its limited knowledge considers it to be.

It is a mental phenomena rooted in consciousness and based on and derived from an Ultimate Reality. It is because it is a mental phenomena that it can have a centre from which the mental images in the Divine Mind which constitute Cosmic Ideation are projected. And it is the Ultimate Reality functioning from this centre which is the centre of reference and standard of judgement for the Universe projected from it.

If we adopt materialistic doctrine then there is conflict of interests, rivalry, exploitation, unhappiness, anxiety and general chaos.

If we adopt occult doctrine then there is no conflict of interests but mutual sympathy, help and cooperation.

It is easier to show that mind, consciousness and matter are derived from only one Reality. This is the highest doctrine of occultism and the ultimate truth of existence.

It is true that all the knowledge of occultism, unlike scientific knowledge is not available to the general public that is why it is called 'Occultism' (गुह्य विद्या).

Every individual who wants to know the truths of the inner life directly and not second hand; must pay the price for this and develop his own perceptive faculties to perceive them within his own consciousness.

The truth is seen in its fullest and essential nature by direct perception in one's consciousness in the state of Samadhi (समाधि).



THE ENIGMA OF MYSTERY

Dhruba Prasad Panda

Vice-President, TSRA

““Mysterious means that we do not understand it. It doesn't mean that we will never understand it. It is not that they are inevitably mysterious. Mathematics seems to be in full control of the physical world. This relationship is a deep mystery. If you study modern physics, it is not just precision, there is extraordinary and incredible precision in the way mathematics controls the physical world. Consider Gravity in Newtonian mechanics. Newton had three decimal places, at the best, in his observation.

But later, the theory he produced fit the data up to about seven decimal places. All the rest is out there in the world. He did not find the best theory to fit this level. He just had one theory that he applied. But he was not quite right because Einstein comes along the way and one started to the discrepancies. Then Einstein produced another theory and it evolved out of Newton's theory. This incorporates some new ideas, which are beyond Newton's theory, like the idea of 'curved space', which is very remarkable idea. Then there is a theory which is accurate up

to fourteen decimal places. The precision that Einstein had was only seven decimal places and all these other precision are already out there in the world, it is not that we imposed the precision. We have a theory which fits the precision as much as it can, but in real world the precision is fantastic. We gradually evolve into full precision. Till such time even real world remains mysterious. There are discrepancies even when the precision is remarkable.

There is extraordinary precision in Quantum Mechanics but that doesn't mean that it is completely right. This precision is one of the reasons why we say it is mystery. Somehow the idea is not just calculational idea or something. They are very sophisticated mathematical notions and very beautiful ideas too. Why should they be beautiful? Why should they be sophisticated? That is where we think the mystery lies.“ We have real numbers to measure distances and so on. We have the real line of real numbers, which have decimal numbers. We have calculators which calculate using ten decimal numbers which is more

precise than you actually need to measure a line. But then just to make the mathematics work better, people in the fifteenth century or so discovered that there could be other kinds of numbers. These numbers are called imaginary numbers or complex numbers. They introduced this just for sake of convenience, but they saw magical properties, which are mathematically very remarkable. We would have never imagined.

They have introduced just one number square root of minus one, and suddenly, we can solve many different kinds of equations, which we never believed we would be able to solve. It has many different kinds of roles which are completely miraculous. It almost looks like magic. For a long time people called it mathematical magic because we don't see complex numbers in real world. They simply didn't exist in reality. When we measure any thing we use real numbers not imaginary ones. Then Quantum Mechanics came along and suddenly you see that they have universal roles to play in the behaviour of the world at the quantum level. They were out there in the real world. Some parts of that are in the mental world or the Platonic world and suddenly we see they were in the physical world. This is the part

of the mystery. How is it that these things which have to do with mentality or may be with some Platonic absolute notions, suddenly manifest in the physical world. In the Vedic tradition there is a notion which in Sanskrit is called as "Achintya". It means something very mysterious, inconceivable, and beyond our ability to comprehend or think.

God has innumerable inconceivable attributes Achintya-Swarupa-Laksana. These attributes are visible every where in quantum physics and in biological science. In fact the long road to reality will be segments of mysteries. Hence we can say that there are not only mathematical mysteries but there are also cosmological mysteries, artistic mysteries and so on. The Root of Science "To most of the mathematicians mathematics is not just a cultural activity that we have ourselves created but it has a life of its own, and much of it finds an amazing harmony with the physical universe. We can not get any deep understanding of the laws that govern the physical world without entering the world of mathematics.

In particular, the above notion of an 'equivalence class' is relevant not only to a great deal of important

mathematics, but a great deal of important physics as well, such as Einstein's general theory of relativity and the 'gauge theory' that describe the forces of Nature according to modern particle-physics. In modern physics, one can not avoid facing up to the subtlety of sophisticated mathematics.

"It is definitely a pleasure to look at clear night sky to watch the dazzling stars. But, sometimes I puzzle over why the Gods had not organised the stars in a more appropriate way? The arrangement seems more like scattered grains randomly sowed by farmers, rather than the deliberate design of God. Then an odd thought over-took me: do not seek for reasons, in the specific patterns of stars or of other scattered arrangements of objects, instead for a deeper universal order in the way that things behave. Our perception is limited spatially in time. We do not find design in order of things as we do not have a holistic view of the universe. Mathematics has that holistic view. Mathematics has a real life in a real world.

"The first steps towards an understanding of the real influences controlling Nature required a disentangling of the true from the purely suppositional. What the

ancient had to do first was to discover how to disentangle the true from the suppositional in mathematics. This realization that the key to the understanding of Nature lay within an unassailable mathematics was perhaps the first major breakthrough in science. Although mathematical truths of various kind had been surmised since ancient Egyptian and Babylonian times, it was not until the great Greek philosophers Thales of Miletus and Pythagoras of Samos (6th century BC) began to introduce the notion of mathematical proof that the first firm foundation stone of mathematical understanding - and therefore of science itself was laid. Thales may have been the first to introduce this notion of proof, but it was Pythagoras who made important use of it.

"But what is mathematical proof? A proof, in mathematics, is an impeccable argument, using only the methods of pure logical reasoning, which enables one to infer the validity of a given mathematical assertion from the preestablished validity of other mathematical assertions, or from some particular primitive assertions - the axioms - whose validity is taken to be self-evident." Ancient wisdom of India - Nyaya - Vaisesika Darshan deliberated on

this proofs of of various kind and they mean proof as source of valid knowledge. Goutama and Kanada were the pioneers in the fields with their Sutra. They were ancient physicists from India.

"The ancients knew of only one kind of geometry, namely that which we now refer to as Euclidean geometry, but now we know of many other types. Euclidean geometry is a specific mathematical structure, with its own specific axioms, which provided an excellent approximation to a particular aspect of the physical world. That was the aspect of reality, well familiar to the ancient Greek, which refer to the laws governing the geometry of rigid objects and their relations to other rigid objects, as they are moved around in 3-dimensional

space." But what does 'true' mean, in this context? The difficulty was well appreciated by the great ancient Greek philosopher Plato, who lived in Athens from c. 429 to 347 BC, about a century and half after Pythagoras. Plato made it clear that the mathematical propositions - the things that could be regarded as unassailably true - referred not to actual physical objects but to certain idealized entities. He envisaged that these ideal entities inhabited in different world, distinct from physical world. Today we might refer to it as the Platonic World of mathematical forms. The actual mathematical squares, cubes, circles, spheres, triangles etc. would not be part of the physical world, but be inhabitants of Plato's idealized mathematical world of forms.



COMPATIBILITY UNDERLYING THEOSOPHY & SCIENCE

Duryodhan Sahoo

Member, Cuttack Lodge, UTF

Theosophy is a living force. It is the bedrock of all the religions. Synthesis of all the religions is called Divine Wisdom i.e. Theosophy. Theosophy offers an explanation of the 'Riddle of the Universe', harmonising the facts of science with the truths of religion and philosophy. Theosophy gives scope to form a nucleus of the Universal Brotherhood of Humanity, without distinction of race, creed, sex, caste or color. It also encourages the comparative study of Religion, Philosophy and science, to investigate unexplained laws of Nature and the Powers latent in man. Science means the systematic study of the structure and behaviour of the physical and natural world through observation, experimentation and the testing of theories against the evidence obtained. So Theosophy and science are complementary to each other. By combination of science with Theosophy it enhances or emphasizes the qualities of each other or another.

TIME AND OUR LIFE

Change is the unchangeable Truth of Life. Change is inevitable, but transformation is by conscious choice. In fact, Eternal Happiness is the sole aim of every human being. When, I was going through the papers of Dr. R.G.

Allage, Director, BIMS College, Bagalkot on the subject "Life after 60 years' of age", I was very much impressed on his first point viz.

'Forget your Age'. Let us explain as per date of birth, the age is counted, but one should not concentrate on that because age is only a number. First and foremost importance should be given to own Health condition. So our mindset should not be disturbed on the increase of our age rather we should be health conscious first. Physical healthy body helps us to achieve our spiritual goal. Therefore, vedic philosophy says:- "Sariram Adyam, Khalu Dharma Sadhanam- ଶରୀରମ୍ ଆଦ୍ୟମ୍, ଖଳୁ ଧର୍ମ ସାଧନମ୍' Spiritual Philosophy goes like this. Our subconscious mind never grows old. It is timeless, ageless and endless. It is a part of the universal mind of God i.e. supreme energy which was never born and it will never die. Life is endless Age is not the flight of years, but the dawn of wisdom. Wisdom is an awareness of the tremendous spiritual powers in our subconscious mind and the knowledge of how to apply these powers to lead a full and happy life. In fact, Man's life is spiritual and eternal. The Bible says that God is Life. The scientist cannot see an electron with

his eyes, yet he accepts it as a scientific fact, because it is the only valid conclusion, which coincides with his other experimental evidence. We cannot see life. However, we know we are alive. Life is, and we are here to express it in all its beauty and glory. So, we are all Children of Infinite Life. We are all wonderful creation of supreme Energy.

Science & Yoga

The Kathopanishad describes Yoga thus: "When the senses are stilled, when the mind is at rest, when the intellect wavers not-then, say the wise, is reached the highest stage. The steady control of the senses and mind has been defined as Yoga. He who attains it -is free from delusion. In the second aphorism of the first chapter of the Yoga Sutras, Patanjali describes Yoga as "Chitta Vritti Nirodhah". Before understanding Chitta Vritti Nirodhah, We should know the factors, which are the causes for the modification of the Mind (Chitta Vritti) viz. (1) Pramana-a standard or ideal, (2) Viparyaya-a mistaken View. (3) Vikalpa-fancy or imagination, (4) Nidra-Sleep, (5) Smrti-Memory. Besides above factors these are the five causes of Chitta Vritti creating pain (Klesa)-(1) Avidya-Ignorance or nescience (2) Asmita-The feeling of individuality which limits a person and distinguishes him from a group and which may be physical, mental intellectual or emotional, (3) Raga-Attachment or Passion. (4)

Dwesa-aversion or revulsion. (5) Abhinivesa-Love or thirst for life, the instinctive Clinging to worldly life and bodily enjoyment.

Yoga has also been described as wisdom in work or skilful living amongst activities, harmony and moderation. Work in the name of God/Lord, abandoning selfish desires like success or failure, is called Yoga.

Science is the pursuit and application of knowledge and understanding of the natural and social world following as systematic methodology based on evidence. Scientific prayer is the harmonious interaction of the conscious and subconscious levels of mind scientifically directed for a specific purpose. Therefore, the ancient proverb says, "The doctor dresses the wound and God heals it." The practice of yoga has scientific impart on our body as well as mind. Science supports Yoga to build up our self-confidence and also arouses our internal intelligence to realise our own self. This practice throws light on our path towards Divine wisdom and eternal happiness.

Divine Wisdom

Human life is spiritual and eternal. The Bible says that God is life. Life is self-renewing, eternal, indestructible and is the reality of all living beings. Age is not the flight of years, but the down of wisdom. Life is endless. Old age is not a tragic

occurrence. Man has powers, which transcend his bodily powers. He has senses, which transcend his five physical senses. Ethics of science describe our subconscious mind never grows old. It is timeless, ageless and endless. It is a part of the Universal mind of God, which was never born and it will never die. This truth has been confirmed by Bhagabat Gita. Fatigue or old age cannot be predicted on any spiritual quality or power. Patience, Kindness, Veracity, humility, Goodwill, peace, harmony and brotherly love are attributes and qualities, which never grow old. It we continue to generate these qualities here on this plane of life, we will always remain young in spirit. Here we should remember the emblem of Theosophy, where the serpent is swallowing its tail represents the "Circle of the universe", the endlessness of the cyclic process of manifestation. Then the 'Swastika' sign is the fiery cross, with arms of whirling flame revolving (clock wise) to represent the tremendous energies of nature incessantly creating and dissolving the forms through which the evolutionary process takes place.

Last words to conclude

Science gives us scope to investigate for knowing Truth. Like wise, the theosophy also gives us scope to look within us for knowing

Truth. In fact, Truth is the only path, we should practise to achieve the aim i.e. Happiness/Peace. Here comes to our mind, the Buddhist advice to a disciple, when the disciple asked a question to Buddha, "I want Peace / Happiness". Buddha's advice to disciple was-You leave 'I'-which is your 'Ahamkar' i.e. Ego, then leave 'want' which is your 'selfish desire'. Then remains only 'Peace / Happiness". As per Science, Energy cannot be created or destroyed but it is transformed to different forms, like wise as per theosophy, the treasure house of energy is within us only. Only our sub-conscious mind has the answer to all our problems. Our subconscious mind is the builder of our body and mental action. Every thought is a cause and every condition is an effect. The law of life is the law of belief. Believe in the power of our subconscious Mind to heal, inspire, strengthen and prosper us. It we change our thoughts, then we can change our destiny. Our subconscious mind is the instrument to heal our mind and body. Therefore, we should realize the Divine plan and feed our subconscious mind correctly to gain our perfect health, prosperity, peace, wealth and Divine guidance. Always Universal Brotherhood is the key to all success. In fact, Theosophy is the sacred science.



SOME RELATIONSHIPS BETWEEN ORTHODOX AND OCCULT SCIENCE

JAMES GAULT MITCHELL

(One of the twenty 'Papers' selected from those presented at the Theosophy-Science Seminar held at the Centenary International Convention of the Theosophical Society at Adyar in 1975.)

This paper is an attempt to correlate certain aspects of occult teaching with orthodox science, particularly as practised in the West: I shall attempt to outline one specific area of interest, and hope to derive other, more general features, and finally indicate how theosophists can be of help in the advancement of learning.

At the start I would like to recall the teaching in *The Secret Doctrine* (By Madam Blavatsky, the founder President of Theosophical Society) that at one time, the earth was a great deal less "dense" than it is now, that it had achieved its greatest density some tens of thousands of years ago, and is now getting lighter. This is perhaps one of the features of occult teaching which can be an affront to commonsense. Apart from the fact that apparent commonsense is not looked on as a first-class guideline, especially in physics, this particular item is perhaps something which might be proved (or disproved!) by present-day scientific knowledge. I will outline how this might be done. -

First the geological aspect, I say geological guardedly, for much of the work might well be in physics and physiology. I must first outline the concept of "scaling," an aspect of physics applied to the life sciences. (1) Briefly, the weight of an animal is proportional to the cube of its dimension; the weight-carrying capacity of its legs is proportional to the square of its dimension. This means that as animals get bigger the leg bones are proportionately thicker—a dog scaled up to the size of an elephant would be inefficient as its legs would be too thin. Similar, if numerically different, laws apply to other features, e.g. power dissipation. This is the point at which we consider the geological evidence. If in the past animals were less dense than they are now, then presumably their body dimensions would exhibit different ratios from what we would expect with present densities. To take a concrete example, consider one of the gigantic dinosaurs of (apparent) weight 30 tons: it should be possible to examine the skeleton to see if the area of the leg-bones are correct to

support this weight. If the bones were out of proportion on the basis of present day scaling laws, then some hypothesis would be required to explain this, and The Secret Doctrine statement of lesser density in the distant past could be a contender. Obviously other hypotheses could be produced, e.g., the animal had most of its bulk in water. The requirement then is to look at other evidence for and against the alternative hypotheses, e.g. eating mechanism; would it be feasible in a water dweller.

Other aspects of these scaling laws could be considered, the speed at which the animal could move, the provision of energy, oxygen to the tissues. Other features of the physics of the animal could also be considered. The lubrication of the joints for instance. At present, synovial fluid separates the two mating parts of a move-able joint allowing them to move more freely. If, at some point in its running motion, a 30 ton animal is occasionally on one foot, the whole weight must be acting through these joints: if the area of the joint is, say 20 square inches, the pressure on the fluid is 1.5 tons/sq. inch. One would then study the properties of present day synovial fluids to see if this in fact, were feasible. Again the question of containment of this fluid arises. The material in which it is contained would have to withstand this pressure, as

would also the adhesion of the material to the nearby bones: would all these be possible with biological materials? (One thinks of the 20 ton lorries on our roads, with perhaps 10-20 large wheels supporting this load, and intuitively correlates the tyre with the synovial fluid sac-there is certainly no question of a tyre pressure of 1 tons per square inch.)

The question of the tissue material in contact with the ground is also of interest.. Could a 30 ton weight have been supported by biological material of the shape and area indicated by fossil remains?

There are obviously many other points of finer detail (sometimes the most important aspects of tactical proof) which would occur to a physiologist: what I am in effect suggesting is that perhaps a team of a physiologist and a geologist might sit down and design a dinosaur, and see if it is consistent with densities as they obtain in the present day.

It is of interest to note that the largest fully-land animal at present, the African elephant, weighs about 5- $\frac{1}{2}$ tons. Perhaps this represents the largest possible weight, given the limitations of biological materials under present day conditions.

Then, astronomical evidence. Geological/physiological evidence by itself could well be inclusive on the

basis of normal "strategic" scientific evidence. It would be impossible in the time available to discuss this, to have a full discussion of Occam's razor, the Canon of Parsimony, the philosophy which guides science and how this has varied through the millenia, but we might take it to be thus: that hypothesis which explains the greatest number of facts with the least number of assumptions is the most probable. Hence, if other avenues of science can be seen to make use of a varying density earth, then it strengthens the case considerably. Interestingly, in the last few decades, science has postulated that density varies with time as an adjunct to various astronomical hypotheses.

(i) An assessment of the occultation of stars by the moon over the past 20 years indicates a small time drift which can be explained by a change in orbit brought about by a decrease in the gravitational constant G , which can be thought of as being equivalent to a density decrease, and

(ii) Comparisons of the solar eclipses of 20 centuries ago also indicate a time discrepancy which can be explained in the same way, as a decrease in G since then.

(iii) The astronomer Fred Hoyle has produced a cosmology

which calls for a decrease in G as time goes on. (This is in contradiction to The Secret Doctrine statement of an increase till quite recently and then a decrease.)

(iv) The theoretical physicist, Dirac, in 1938, also postulated a decreasing.

(v) Very accurate determination of the lunar orbit using laser beams, should confirm (i) above.

The above examples indicate that the concept of a changing density is by no means unacceptable to physicists and astronomers, correlation of geological data with the astronomical could indicate whether this is a steady decrease with time, or as The Secret Doctrine states.

To summarize: astronomical experimental evidence indicates a present day decrease in density with time; investigation of fossils could indicate that in the distant past there was an increase in density with time.

I would now like to turn to some philosophical and other implications in the interlinking of science with the Ancient Wisdom. The Theosophical Society of course feels that science, philosophy and religion are one, a state of affairs that has not existed for centuries in the west: because of this, some of our members deplore the "attitude" of

scientists to our ideas. Having studied the history of ideas over the past 2~ millenia, I feel that, if it is not a good thing that science has become separated, then it was an inevitable thing. Religious dogma laid such a restraint on scientific thinking that no progress was possible; hence it had to break away. I have heard the point made that when the mechanists were in charge of the direction of science, at least they rolled their shirt-sleeves up and got down to the business of getting results, whereas the metaphysicists sat back in the armchair and speculated. Both sorts, of course, are needed. (It is interesting to consider why they seem to require to be separated, i.e. any one person seems to have to be either a mechanist or a metaphysicist-from all accounts 'Pythagoras' (A legend in Mathematics) was both. My own concept is that there is, at this period in the history of thought, a requirement to amass a large amount of knowledge (by the mechanists) for later digestion into a philosophy (by the metaphysicists).

A case could be made for this changeover taking place now. If one accepts that, in Britain, Roman types (discipline from above, law, order) are no longer incarnating, and that Greek types (speculative, metaphysical, personal freedom) are, then they

would undertake this philosophical digestion. It would seem reasonable that this changeover should coincide with the advent of the aquarian age.

There are, perhaps, some implications to be got from the study of the metaphysical versus the mechanistic approach. I think that the metaphysicist sometimes does not realize the vast amount of sheer spadework that must go into the production of a small amount of writing in the book of knowledge: Ohm's law can be stated in a couple of dozen words, but how many months, years of research did it take Ohm to formulate it? The Secret Doctrine statement on the earth's densification also occupies only a few words in the book, but how many man years of experiment and calculation would be needed to produce scientific proof, one way or the other? And it is right and proper that this should be done in this laborious way, at this stage of the world's development: if we are developing the mental body then this is the way to do so, rather than accept "revealed" truths. This is perhaps a point to meditate on when considering the attitudes of mind of the orthodox scientists. In this connection it is most interesting to compare Theosophical Society views on development of intelligence with others and its inter-relatedness

with ideas of time, i.e. the concept of time not existing for the liberated man, but being necessary for the development of intelligence, and the concept that other civilizations have of it. Is this thing we call "impatience". with its connotation of time not being under our control, a product of the desire of the approaching traveller to climb quickly up the steps of the tower of victory, but being held back by the half-formed beast ?

Now we might perhaps turn to the methods of advancing knowledge. I do not know if there is much to be gained in wordy debate with orthodox science at present (it may be different in 10 or 100 years time): to do so could result in a defensive attitude of mind which would render it impervious to

external ideas. Rather perhaps, let us make use of the concept of the mental body and mental atmosphere: that we can throw ideas up into this atmosphere, with a view to them settling on sympathetic mental bodies. If any of the present audience feel there is something of value in the idea of designing this dinosaur, then let them think positively about it during the few minutes before sleep-or while in the company of people discussing fossils-or when with those who study biomechanics. This type of action, with good motives behind it, could achieve much in the forging of the links between orthodox and occult sciences, and of re-establishing, the links between religion, philosophy and science.

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THE HUMAN TRINITY

E. Norman Pearson

(Chapters III & IV of the Book "Space, time and Self"
Written by E. Norman Pearson)

The Christian Scriptures tell us that man is made "in the image and likeness of God ". In the Hindu Bhagavad Gita we read the words of Shri Krishna "I am the Self, seated in the heart of all beings." Similarly, there is an almost universal agreement among the great world religions that man is a spiritual being, partaking of the nature of his Divine Creator. So we should now begin to realize the very close bond of union between man and God. We see how intimately "in Him we live and move and have our being ". For the human Monad (which is the true Self-the Divine Seed) is rooted within and proceeds from the consciousness of God Himself. Therefore, since God is a Trinity, man too must be a trinity.

In Fig. 6 this relationship of man to God is illustrated. The human Monad is seen to derive its being from the Divine Consciousness and the human trinity is shown as a reflection of the Divine Trinity. We can also approach this question from the point of view of actual, everyday experience, using the method of the introspective psychologist and endeavoring to analyze the content and functioning of our own consciousness. Let us then sit quietly for a few moments, avoiding, so far as possible, all distracting sounds and sights-anything that might draw our attention away from the purpose we have in mind. Try to maintain an emotional and mental balance, with the mind poised and alert. Now, gradually try to awaken an awareness of the workings of your consciousness. You will find that you can classify the results under three basic divisions. You are aware:

1. OF THINGS.

Of a material world, which is around you.

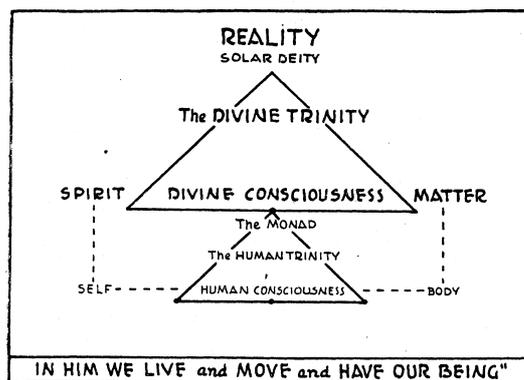


Fig. 6

2. OF BEING CONSCIOUS

Changing states of Consciousness arising from, or independent of, current stimuli.

3. OF SELF.

That within you which makes you You, a being separate from other beings.

It should not be difficult to discern this triple nature of your consciousness and note that it agrees with the ideas just presented when we approached this question from "above" rather than, as now, from "below". So is man a "God in the making"?

THE THREE GREAT ILLUSIONS

THERE is an old adage that "seeing is believing". Today we know that statement is not true. In fact, we can be quite sure that what we see is not true! We do not know the whole truth about anything. With physical things as well as spiritual, we only "see through a glass darkly". The world looks fiat; but we know it is not. The sun seems to move across the sky. That is an illusion caused by the earth turning on its axis. We seem to see many stars in the heavens; but they are not where they appear to be, they are millions of miles away. We think our body is a fairly solid object; but science tells us that all the really

solid matter it contains could be put into an ordinary thimble. Put a stick into water and it seems to bend; but it does not change.

In the National Academy of Science, Washington, D. C., hanging from the dome of the building, there is a "Focault Pendulum". It consists of a long steel wire, suspended on a frictionless point, and to its lower end a heavy metal ball is attached. The ball swings slowly and steadily over a dial, placed horizontally below it, which is marked like the face of a clock with the twenty-four hours of the day. As time passes, the ball marks off the passing hours, appearing to change the direction of its swing as they go by. That is only what it appears to do. Actually the ball does not change the original direction of its swing at all. Instead, the dial, the building, the whole world, move underneath it, while the ball keeps on swinging in the same direction as before. (See Fig. 7.)

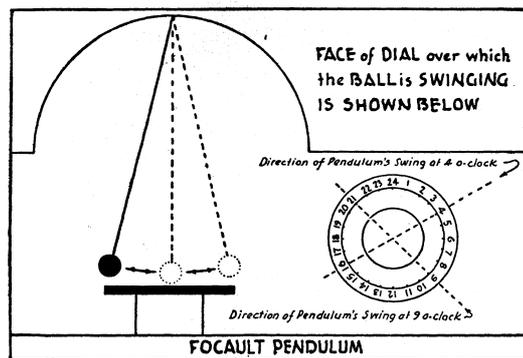


FIG. 7

The, air, which sometimes seems so still on a summer's evening, presents another illusion. It is not still. In every cubic inch of invisible air, science tells us, there are more than 100,000,000,000,000 molecules each of which is in rapid motion, colliding with another molecule every 1/20,000th of an inch of its journey and being turned from its path 5,000,000,000 times every second! Small though molecules are, atoms are much smaller. And now, as we all know, our men of science have revealed the fact that the atom, once thought to be the ultimate and indivisible unit of matter, is not solid at all but is made up of a central nucleus with one or [more units, known as "electrons," revolving around it, and at comparatively very great distances from it. So scientists are now agreed that the "solidity" of the matter we see around us, seemingly the most real thing that we can know, is only apparent. It is a myth. It is not true. It is an illusion.

The list could be continued almost indefinitely, but repetition would be of little value. The inadequacy of the sense

THE THREE GREAT ILLUSIONS

Organs is now fully recognized. Touch, taste and smell do

little more than give us certain information which is of value for our physical welfare. Our sense of hearing covers eleven octaves of vibration from sixteen to thirty-two thousand per second. But many animals, birds and insects can hear sounds far beyond the point where the human ear fails to respond. Nature may be providing them with great experiences of which we know nothing. Out of sixty or more known octaves of radiant waves, the human eye is sensitive to only one! Yet our knowledge of our environment depends upon the faculty of sight more than upon any other. In spite of our fragmentary knowledge, however, the world as we know it is a wonderful world. Its beauties and marvels should indicate to all, except those who stubbornly refuse to see, that a magnificent plan is unfolding, one which becomes more entrancing with every new discovery that is made. And yet, it is a world of illusion. That does not mean that it does not exist, but that we do not know it as it really is. The world as it exists in the consciousness of man is not identical with the world as it exists in the consciousness of God. In other words, Reality lies in the Infinite and Unmanifest. The world of limitation and manifestation is a world of

illusion. But we should not fall into the error of thinking that the Unmanifest is an indefinable "nothingness"; rather it is in indefinable "Allness ". All manifestation is dependent upon limitation. A "thing" can exist only by virtue of a limitation which separates it from other "things ". Even such vastness as a Solar System or a Cosmos is limitation in space. The Infinite or Unmanifest is that in which all opposites exist and yet are dissolved into the reality which lies behind and gives rise to those opposites.

We now come to the climax of the train of thought we have been following step by step, and to another major key to an understanding of life. Reference to Fig. 8 will show a similarity to Fig. 6, but more has been added. When the human consciousness functions through its three aspects, each one of them presents a different illusion. When consciousness is turned outward and is dealing with material things, it becomes snared in the illusion of things, which exist in Space. As we have already seen, things are not what they seem to be. All objects, we say, have extensions and dimensions. They have what we call size and shape. We think of them as large or small, as occupying much or

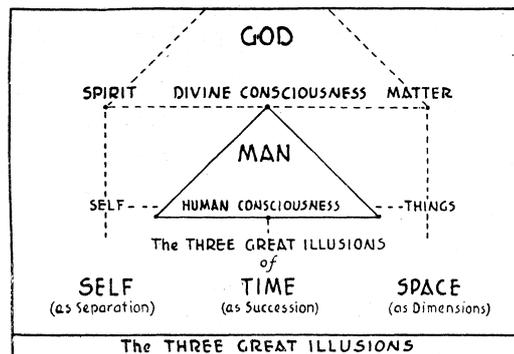


FIG. 8

little space. And yet size is only relative and can be expressed only in terms of comparison with some other object. To a man, a marble is small; to an ant it must seem large. The earth is immense-or so it appears to us. But one million earths could be put inside the sun and there would still be room for more. So, compared with the sun, it is small. No object, in itself, is either large or small. The measure of largeness or smallness that it possesses is dependent upon the observer, or another object with which it is being compared.

When the consciousness is turned to a study of consciousness itself, it becomes snared in the illusion of Time. It sees a steady growth of unfolding awareness taking place, and is conscious of events succeeding events. Varying circumstances can produce a wide difference in our mental reactions to

equal measurements of time. A simple illustration-which must have been experienced by every one of us-may be drawn from the old saying: "A watched pot never boils." That is almost true!

When consciousness turns to things of the Spirit, it becomes snared in the illusion of Self It sees Self as separate from other Selves. In the beginning it thinks of the physical body as the Self. To overcome the

illusion of the separated Self is perhaps the most difficult task which lies before us, and there are many stages of illusion to be mastered before the True Self is found.

So, as shown in Fig. 8, there are three great illusions in life which we must face and conquer: the illusion of Space (as dimensions), the illusion of Time (as succession), and the illusion of Self (as separation).



E. Norman Pearson born in England in 1887 joined the Theosophical Society in 1910 during a long life of service to the cause of Theosophy he distributed lectures and class material illustrated by reel slides.

He was National Vice-President of the American Section of the Theosophical Society in 1936.