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EDITORIAL NOTES

This Newsletter is prepared by the Theosophy-Science Group in Australia for interested members of the Theosophical Society in Australia. The email version is also made available on request to members of the Theosophical Society in New Zealand and USA by the respective National bodies. Members in USA should contact tsa@theosophical.org Members in New Zealand should contact: john@serion.co.nz. Recipients are welcome to share the Newsletter with friends but it must not be reproduced in any medium including on a website. However, permission is given for quoting of extracts or individual articles with due acknowledgment. Selected items appear from time to time on the website of the TS in Australia - austheos.org.au.

As the editor of this Newsletter and Convener of the Australian Theosophy-Science Group I hope to continue providing readers with news of our activities, past and future, as well as articles of general scientific and theosophical interest. I would welcome contributions from our readers.

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FROM OUR SPRINGBROOK SYMPOSIUM 29 SEPT- 2 OCT 2014:

MIND OVER MATTER: a scientific overview

Talks in order of presentation:

Olga Gostin "Menticulture: a key to understanding Aboriginal cultures"
Victor Macgill "Mind through Matter: focusing on embodied cognition"
Kevin Davey "The Proem and Modern Cosmology – An Opportunity to Stretch the Mind"
Richard Silberstein "The nexus between bioelectric fields and past life memories"
Victor Gostin "Noosphere: the reality of a mental world"
Chris Pangway "Psychic Investigators - the TV series and other examples"
Marcello Serini "Kashmir Shaivism as a clue to a multidimensional universe"

The brief report to our Society H/Q in Sydney follows:

"Our latest Theosophy-Science Symposium has gone extremely well.

Given the overarching topic of "MIND over MATTER" and the different specialties that our speakers brought to the Symposium, it evolved through a spectrum from "brain activity" and the SD Proem, into the concept of the Noosphere (leading to the Green

Cross International) and to psychic investigators and the modern effects of social/scientific web media.

The two full days (Tue-Wed) felt much like four, with adequate time for discussion. The food was tastefully prepared by Carolyn and Jean; thank you both. The weather was fine, and our luck was there to observe the fire-flies at sundown. The accommodation offered was superb, and the setting was immaculate - Kay had clearly exerted herself in creating new green and flower 'gardens'. Thank you. Several members, including those who had not been to Springbrook, expressed their wish to have our meetings every year rather than 18-24 months apart. So who knows? [At this stage, we should plan for our next Symposium in early 2016 – ed] It remains for me to thank the Theosophical Society for this opportunity of sharing Theosophy and science in the sacred atmosphere of Springbrook. As our symposium was organised with help from the TOS, it is great to report the resulting donation to the TOS of over \$900.

Mind through Matter

Summary of lecture presented by Victor MacGill at the Springbrook Symposium, September 2014.

Cognitive Behaviour Theory sees cognition as mainly an activity of mind. The role of bodily feelings is recognised but the role of the body in cognition is not emphasised. Science is also mainly reductionist, seeing the world as being full of separate objects meaning it tends to not recognise the interconnectedness. The brain is seen as being able to be separated from the body, whereas in fact the brain can only be understood within the context of the entire nervous system and the nervous systems can only be understood within the context of the whole body. We can thus see the entire body as a cognising organ.

Further than that, systems science tells us no complex system, which includes all life, has any meaning without the environment within which it exists. Maturana (2002,08) talks of structural coupling where two people in conversation cannot be fully understood as separate beings interchanging messages, but rather the whole, including the two people, the interactions between them, and the environment in which they interact must be seen as one recursively interacting whole. Cognition is the process of making sense of the body/mind within an environment and the tool around which the whole process pivots is the body.

Taking a different perspective, we know from the writings of Kant that we have no direct experienced of the world we live in. All we can ever experience is what is created in our minds as a result of the neural messages sent as a result of stimuli received from the outside world. What we see and hear as a clock is entirely created in our mind. Similarly, what we experience as our heartbeat is only a creation of our mind as a result of neural messages sent to the brain as a result of the heart's pumping actions. The boundary then between me and the outside world is illusory.

Everything I experience is just a creation of mind and it is mind that creates the boundary in order to make sense of the experience. The world has no intrinsic boundaries. There are no boundaries other than those we place there ourselves. The first boundary the new-born baby must create is the boundary between inside and outside. It must connect the kinaesthetic sense it feels in its hand to the sight of the hand as an object in the external world. It makes a connection it cannot make with a book or a toy. Thus through trial and error the boundary becomes realised.

Other distinctions must then be made: forward and backwards, up and down, near and far, light and dark, male and female. Once the world is divided into separate parts they each get tagged with being safe or unsafe. We need to move towards safety and away from danger. Forwards or the front is generally safer than back/backwards, Up is generally safer than down (stand vs lying down or defending a higher position is generally stronger than a lower position), light is safer than dark, warm is safer than cold. These distinctions help the animal to survive in and navigate its physical terrain.

Over time we humans evolved powerful cognitive abilities. Rather than starting the mapping process from scratch, we just borrowed the mapping system we had already developed for the physical environment and copied it for us to navigate our cognitive landscape. Instead of being tagged safe or unsafe the tagging became good and bad. Now up is preferable to down, forwards is preferable to backwards, right becomes preferable to left, light is good and dark is bad and so forth.

We therefore talk about, "business going up" and "our plans are moving forwards". A person with a warm heart is good and a cold heart is bad. Honesty is being open while being closed off is negative. George Lakoff tells us that such metaphors are the basis of how we make sense of the world we live in. He further says that the basis of metaphor is not in language but rather a physical connection between the neurons of one concept to neurons involved in another. This means the metaphors we choose to use are physically links. When we change our mind we literally change the shape and placement of neurons in our brain.

If you listen to the language you use you will become aware of how often we use metaphors. We use things from the physical world to describe events in the mental world. We reach the peak of our achievements. When things get easy we are on the downhill slope. We map our body back on the environment. Trees have limbs, rivers have arms and aeroplanes have noses and tails. In all language of which I am aware distance and time are linked. They all use the words long, near, far, and end to describe both distance and time. Life is seen as a journey. We encounter obstacles in our plans just as we encounter obstacles walking a path. We have stormy meetings and feel fenced in by rules.

If we are to communicate, our mapping systems must be sufficiently congruent. We therefore develop shared metaphors and patterning we call culture. The role of a parent is to induct a child into the cultural metaphors so it can eventually act as an adult in the community. Language is an obvious example. For two people to communicate they must both understand and use the same language. The particular

nature of any culture will be determined by factors such as geography, technology, climate and other nearby societies. Each culture evolves in a way than is appropriate and effective for them to maintain coherence.

Societal roles emerge such as the leader, warrior, wise person and nurturer constellate as archetypes of the king, warrior, magician and lover. These are mental maps that provide the context for any communications. Through the archetypes the chief and the warrior know how to communicate with each other and how to act in the other's presence.

If a culture becomes distorted as we have seen in patriarchal and militaristic cultures, the distortion will flow through to all aspects of life for that culture. The language becomes dominated by patriarchal metaphors archetypes and narratives. George Lakoff (1980) talks of how we see arguments as a battle, "winning my point" or "defeating their argument" whereas we could equally choose to see it as a dance describing the flow of ideas from one to another to create something of beauty.

Dualities are often linked. Earth and sky becomes linked to male and female giving rise to the gods and goddess of earth mother and sky father seen all around the world. (The Egyptians have the sky mother and earth father but they still make the link). Matriarchal societies typically generated mythological narratives including life, blood, birth, moon, nurturing and cycles. Patriarchal societies generated narratives including blood, death, conquering and linearity. When patriarchal societies dominated matriarchal societies the combined mythological narrative typically included elements like virgin birth, blood sacrifice, a world tree, a hero's journey, battle against a demon, death, resurrection, being raised in glory or a marriage. Examples of this are found in the Garden of Eden, Osiris and Isis, Gilgamesh, The crucifixion of Jesus and even Jack and the beanstalk.

We cannot communicate in a meaningful way without a common culture, but as soon as we create a common culture we have chosen one particular way of seeing the world among a myriad of alternatives. We soon find ourselves trapped an unable to see the alternatives and start seeing them as wrong. All too often we are willing to perpetrate violence on others to maintain our perceived rightness. A very important marker on the journey of spirit is the realisation that my way is only one of many and all cultures have their level of validity. If we can find ways to expand our horizon of conceivability of what can be and how we might be able to link to others sharing and rejoicing in our difference, we move beyond the trap of being stuck in the bottom of a canal where we can only see in one direction and the walls stop us from seeing out to the side.

The metaphors we choose to make sense of our world are critical. We can choose to use metaphors that are open and inclusive rather than linear and divisive. We can talk of circles and spirals, of connectedness and unity and dancing together. If we find more wholesome metaphors we form more wholesome worldviews. With more wholesome worldviews we create more wholesome social structures and with more wholesome social structures we can live more wholesome, loving creative lives.

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University Of Chicago Press.

Maturana, H. (2002). Autopoiesis, Structural coupling and cognition: A history of these and other notions in the biology of cognition. *Cybernetics*, *9*(3), 5–34. Maturana, H., & Verden-Zoller. (2008). *The origin of humanness in the biology of love*. Exeter, UK: Imprint Academic.

Victor MacGill is a PhD student through the University of the Sunshine Coast researching groups that operate without a structured leadership using complex systems principles. He is the past president of the Dunedin Theosophical Society and now working to re-establish the Nelson branch. He has written two books, When the Dragon Stirs: Healing our Wounded Lives through Fairy Stories, Myths and Legends and Gonna Lay Down my Sword and Shield: A Complexity Perspective on Human Evolution from a Violent Past to a Compassionate Future. Both are available through Amazon.

The Proem and modern cosmology: an opportunity to stretch the mind.

Lecture presented by Kevin Davey at the Springbrook Symposium, September 2014

I have had an interest in cosmology, the evolution, origin and structure of our universe, since I was young. Such is my interest in astronomy I successfully completed a Master of Science in astronomy in 2010. Similarly I have followed science, and even taught it at high school level, and encouraged my children's interest in it. While at school I tended to prefer the steady-state theory proposed by Fred Hoyle, Thomas Gold and Hermann Bondi over the idea of the Big Bang. However, when evidence for the idea of the Big Bang began to become more convincing, I read and followed the development of this theory over many years.

Much more recently I have been introduced to Theosophical discussions and ideas. The idea and power of having an open mind made me realise that a number of Theosophical concepts just couldn't happen within a Big Bang universe. I developed an understanding that the Big Bang universe with which we are relatively familiar was only a small part of a much bigger universe. I began to call our experiential universe the 'Big Bang universe' or the 'physical' or 'visible' universe to differentiate if from the infinitely larger universe in which ours is such a tiny speck.

At the Adelaide Lodge of the Theosophical Society I heard people talk about and refer to one of Helena Blavatsky's written works called *The Secret Doctrine*. I was warned it was very difficult to read and exceedingly difficult to understand so I didn't put any of my energies into it. More recently I was introduced to Pablo Sender's series talks published in eight DVDs called *The Secret Doctrine*: Esoteric Insights And Spiritual

Practice. Pablo Sender was to visit to Springbrook to deliver these talks but visa difficulties in the United States prevented him from coming. This introduction to Theosophy is, of course, his personal view on *The Secret Doctrine*, but it is presented in such a simple easy to understand manner that I was quite taken by much of the contents. I began to realise that there is great similarity in some aspects of modern cosmology and *The Secret Doctrine*. Volume one of *The Secret Doctrine* is about cosmogenesis, the formation, existence and evolution of the cosmos, the physical universe. The Proem, equivalent to an introduction of Volume I *The Secret Doctrine*, is where Blavatsky discusses what will be contained in the main text. It is recommended that new readers begin with this.

The First Fundamental Proposition within the proem is: "An Omnipresent, Eternal, Boundless, and Immutable PRINCIPLE on which all speculation is impossible, since it transcends the power of human perception and could only be dwarfed by any human expression or similitude." (S.D. V1 p14). This First Fundamental Proposition seems to be suggesting that one should not bother thinking about some concepts because they cannot be understood. However, Annie Besant writes in *Unseen Worlds* (pp 14-15) "The seat of self-consciousness is moved from the lower mind to the higher mind by strenuous thinking...". Strenuous thinking is something we need to undergo in our spiritual evolution. Here is a wonderful opportunity to stretch the mind.

Some concepts within modern cosmology must be understood to enable a comparison with some statements within the Proem. The first is a proposal that time is linked to entropy. Entropy remains a very diverse and difficult subject that was tackled in the 18th and 19th centuries in efforts to make the most efficient steam engines, involving heat energy and the motion of gases. Entropy is also about the amount of disorder in a system, disorder being a measure of how many ways a system can be configured. Entropy notes that natural conditions move systems to a more probable state, a more likely configuration. For example, consider a pack of playing cards. It is very likely that after being used the cards will not be arranged in the order:

Ace to King of hearts, followed by East King of diamonds, then Ace to King of spades, and Ace to King of clubs.

This is only one of the ways the 52 cards in a pack can be presented. The 52 cards can be shuffled into 52! (pronounced "fifty-two factorial") different ways. That is $52 \times 51 \times 50 \times 49 \times 48 \times \ldots \times 3 \times 2 \times 1$ which works out to be about 8×10^{67} ways! Thus a new pack of playing cards, neatly ordered Ace to King in suit order, which can only be created in ONE way, becomes highly disordered with shuffling. The new pack has very low entropy which can be greatly increased.

The same is happening with our physical universe. It can be considered to have started in a very ordered state with very low entropy at the Big Bang. In the roughly 13.798 billion years since the Big Bang, its entropy has been increasing. Each of the stars and galaxies within it could be arranged in a vastly huge number of ways, their

appearance, location and even existence could have been shuffled around endlessly. This increase in entropy is proposed to be the basis for time. The arrow of time follows the increase in entropy. If there is no change in entropy, there is nothing to measure time by. Without a process involving a change of entropy it can be said that time would not exist, or perhaps more accurately, would not be manifested. Time within our physical universe started, like a stopwatch, with the Big Bang.

In 1998 it was announced that the expansion of the universe is increasing at an ever increasing rate. This expansion will not stop. The gravity produced by everything inside our universe will not cause the expansion to pause and the universe to collapse in on itself. The second ramification is that our universe is going to become very dark and very cold. Every star will cease producing energy. Matter will decay over billions and billions of years and even black holes will evaporate. The light once released from stars will be stretched into longer and longer wavelengths becoming exceedingly low energy radiation. The immensely high temperatures of the Big Bang have already cooled to 2.7° above absolute zero. As the universe expands, this cooling will continue to the level of vacuum energy.

Albert Einstein's Theory of General Relativity contains equations that are very difficult to solve. One of the first solutions was achieved by Willem de Sitter (1872-1934) and is known as "de Sitter space". De Sitters' solution accurately fits as a mathematical description of the evolution of our universe from 10⁻³³ seconds into the far future. De Sitter space is infinite and has an energy very slightly above absolute zero. It appears that our Big Bang universe is evolving to become de Sitter space.

De sitter space behaves in same way as a quantum vacuum in which pairs of subatomic particles constantly form and annihilate each other. It is as if a vacuum temporarily "lends" some energy to create particles that exist and then give their energy back. While most of this particle creation will be at subatomic levels its possible that a large number of particles can be formed at once. De Sitter space is infinite: it is difficult – perhaps impossible - to imagine what an infinite space is – as Blavatsky seemingly cautions. But as it is infinite there are very small but real probabilities which predict a whole universe could suddenly pop into existence from de Sitter space – as our universe did in the Big Bang. Indeed, many universes may come into existence, eventually returning their borrowed energy to de Sitter space after either short periods of time or billions upon billions of years.

Helene Blavatsky's Great Breath is reminiscent of this flow and ebb of such physical universes. Like a breath, our universe has manifested and will dissolve. Similarly to the de Sitter space, The Absolute, introduced in the Proem of *The Secret Doctrine*, is the source of everything it is infinite, beyond time it contains consciousness and unconsciousness, is neither empty nor full, "devoid of all attributes and is essentially without any relation to manifested, finite being." (S,D. VI p 14). The Absolute is the source of all manifestations.

De Sitter space is an infinite universe which contains our Big Bang universe. In an infinite universe all sorts of things can happen simply by chance – we only have to wait long enough. Random fluctuations will occur, most of which will be tiny. Some will be large and reinforce themselves to become even larger. It is proposed that some very intense fluctuations may spawn completely new "bubble" or "pocket" universes. Our physical universe could have emerged from de Sitter's eternally existing very high entropy field of infinite size. An infinite number of universes may have propagated and could still be propagating.

H.P.B. writes "the eternity of the Universe in toto is a boundless plane, periodically the playground of numberless Universes incessantly manifesting and disappearing." (S.D. V1 p16). What an amazing correlation with modern cosmology!

Psychic Investigators - The TV series and other examples

A summary of lecture presented by Chris Pang Way at the Springbrook Symposium

The Theosophical Society has always taken a keen interest in psychic powers for a number of reasons:

- The third object of the Theosophical Society is "To investigate unexplained laws of nature and the powers latent in the human being"
- Some early prominent Theosophists were gifted psychics Madam H.P.
 Blavatsky, Charles Leadbeater, Annie Besant as well as some more recent members such as Dora Kunz (1999) and Geoffrey Hodson (1983).
- One of the reasons given for the formation of the Theosophical Society was that in the mid 1800s public interest in psychic phenomena was widespread but was mainly centred in mediumship and what material advantage could be gained from knowledge gained in this manner. The Society was formed partly, to give guidance in this area.

By the mid 1900s scientific ideas predominated and people would be ridiculed if they talked of psychic powers.

Thus it was of interest to see that psychic abilities have enough public acceptance in the last few years ($\sim 2006-2008$) for TV series such as "Psychic Investigators", "The One – Australia's most gifted Psychic" and "Sensing Murder" to be screened. A short excerpt from a "Psychic Investigators" episode was given based on a case from the USA.

Uses of psychic abilities:

- Helping with solving murder cases is one use.
- C.W. Leadbeater and Annie Besant were able to have fine control of their abilities and could e.g. use it to examine matter at its most basic level (*Occult Chemistry* by Leadbeater and Besant)
- Looking at a person's aura to diagnose health issues

- Dora Kunz: Fields and their clinical implications; co-author Erik Peper, 1985.
- Spiritual aspects of the healing arts, 1985
- Spiritual Healing, 1995
- Geoffrey Hodson: An Occult View of Health and Disease 1930
- New Light on the Problem of Disease 1930

A brief description of the work of several scientists and Geoffrey Hodson was given. Geoffrey was asked to utilise his clairvoyant abilities to help them with investigations which were too subtle for conventional examination in the laboratory. David D. Lyness, M.B.Ch.B., D.P.M., M.A.N.Z.C.P., Murray A. Stentiford, M.Sc. (Physics), Dr E. Lester Smith F.R.S. of England and Professor J.T. Robinson, D. Sc. all had worked with Geoffrey Hodson.

Davis Lyness: "He (Geoffrey) frequently stressed the selective nature of clairvoyant observation and was fully aware of the pitfalls associated with the translation of what can be called 'raw extra-sensory data' through the brain-mind into words capable of conveying useful meaning to his hearers."

Professor J.T. Robinson: "I was able to work very closely with Geoffrey Hodson for some months during the late 'fifties testing his clairvoyant powers on pieces of fossils of early man about two million years of age. Each session carried out in the field site from which the specimens came, was recorded on a tape recorder. No indication was given him what I thought of his information until after the series of tests were completed and analysed. Many of the questions put to him required answers which could not be positively checked against known original specimens.

"The analysis showed that every statement made by him which was able to be positively checked against known specimens was absolutely accurate, and most of what could not be positively checked was in close agreement with what was thought to be correct. At that time almost all of the known fossil material of these early hominids was in my laboratory, and Geoffrey did not see any of it until after the investigations were completed. I was impressed by the extreme care he took over being as accurate and clear as he could be in the observations he made, as well as his descriptions of them in such a way that his words were as precise as possible in offering the least possibility of misinterpretation.

"At each session a small number (2-4) of specimens were dealt with, and some were presented several times at more than one session without telling him this. He never handled the specimens himself, I placed them on his forehead while he was lying on his back with his eyes closed in a state of yoga. Two different species of hominid were used mixed at random, only small specimens being used, e.g. a single tooth. He never misidentified a specimen or gave conflicting statements about a specimen that had been presented more than once. As far as I could determine his

information was always accurate and he gave me a strong impression of complete reliability."

Developing psychic abilities and warnings:

Certain yogic exercises and meditations are said to awaken the kundalini and hence psychic powers.

Theosophical literature warns against this:

(Article for one of the Australian Lodges' news-letter described the experiences of a Japanese professor who tried to develop psychic senses – he succeeded but went through much mental & emotional stress along the way e.g. saw terrifying forms.) Also as with our normal senses e.g. seeing, a person can misinterpret what they see psychically. As with the physical plane e.g. one may see litter on a bush-walk. To clean it up requires physical work. If one has psychic ability one may find there is "clean up" work to be done at subtler levels as well. (Example: land needing psychic cleansing).

An excerpt from The Science of Seership by Geoffrey Hodson. Written in 1929. How to become psychic.

"Any expansion of consciousness is valueless unless the personal vehicles of thought, feeling and action are sufficiently refined to receive and express its results.

"In order to achieve refinement of the vehicles a strictly ethical and aesthetic mode of life must be adopted; everything which is contrary to the highest ethical and cultural ideals must be avoided. All tendency to coarseness and self-indulgence must be gradually eliminated. The mind must be purified by pure thinking, and the feelings cleansed by resistance to every impure emotion. The body, in its turn, must be made healthy, responsive and as pure as possible by scrupulous personal cleanliness, a pure diet, and complete obedience to the laws of health.

"Those who make this attempt will nearly always adopt a fleshless diet, because, as they find the sense of the unity of all life growing within them, it will become impossible for them to eat the dead bodies of their animal brothers. Further, if matter which is vibrating at a lower rate than that of the human body is taken for food, the bodily power of response is decreased; a flesh diet therefore interferes seriously with the development of seership. In addition to the coarser vibrations of the matter of animal bodies, there are also present the terrible vibrations of cruelty, horror, pain and agonizing fear, which are inseparable from the use of flesh as food.

"By putting flesh into our bodies we are really desecrating the temple of the Most High. The law of life is the law of love, not of death. If we choose the way of life its laws must be obeyed, for disaster will quickly follow disobedience.

"These laws may be summed up as purification of thought, refinement of feeling, and control of bodily conduct. The neophyte must settle down to steady self-training, never forgetting the object in view, which is the development to the highest possible

degree of will power, wisdom and knowledge, and the attainment of the glorious goal of ever-widening fields of service."

Summary:

- Psychic abilities can be used and are used for problems of this physical world but the limitations should also be recognised.
- If one wishes to actively develop these abilities, Geoffrey Hodson's writings on the topic are a very good guide. Otherwise the general consensus is to let the psychic senses develop naturally at their own pace.

Comment on Chris Pangway presentation: *Psychic Investigations – The TV Series and Other Examples*.

During his presentation, Chris Pangway spoke of psychic examination of matter and referred to Annie Besant and Charles Leadbeater's book *Occult Chemistry*, first published in 1908 with revisions in 1919 and 1951. Besant and Leadbeater employed clairvoyant methods to examine the structure of elements, starting first with those making up air. This was a difficult process, as Leadbeater indicated when he said that the atoms had no labels. However, a description of hydrogen, oxygen and nitrogen was provided, along with an unknown element they named "occultum". They went on to examine almost all the known elements and found some unexpected results. Neon, first examined in 1907, was determined to have two varieties of different atomic weight, one of which they called "meta-neon". This detection was made before the discovery of isotopes – elements that have the identical chemical characteristics but different atomic weights. Any particular element has a set number of protons in its nucleus but may have different numbers of neutrons, hence the different atomic weights.

At the time of the publication of *Occult Chemistry* scientists were trying to determine the structure of the atom, then thought to be a "plum pudding" model where the recently discovered negative electrons were mixed in with the unknown positive components. Discoveries were quickly made and in 1912 Francis Aston determined that neon and meta-neon, which had been very difficult to separate, had atomic weights of 20 and 22 respectively. Aston announced his discovery to the British Association in 1913, where he made reference to the book in a footnote. Many scientists were members of psychic groups and the Theosophical Society at this time.

Aston was awarded the 1922 Nobel Prize in Chemistry "for his discovery, by means of his mass spectrograph, of isotopes, in a large number of non-radioactive elements, and for his enunciation of the whole-number rule". By this time psychic research was out of favour in science and Aston did not acknowledge the work done by Besant and Leadbeater. Two publications may interest the reader. The first edition of *Occult Chemistry* is out of copyright and can be downloaded from a number of web sites

readily found by typing the name of the book into your favourite search engine. An article published in *Physics World*, September 2003 entitled *Occultism and the atom:* the curious story of isotopes by Jeff Hughes, is fascinating to read and describes this story in some detail. The article can also be found on the web. Thanks to Chris for drawing attention to this most interesting topic.

[Comments provided by Kevin Davey]

PLANTS COMMUNICATE WITH EACH OTHER

Dr. Suzanne Simard is a professor with the UBC Faculty of Forestry. She comes to us with the amazing discovery that mycorrhizae and mycorrhizal fungi forms networks between the trees that allow for a type of communication between the trees. It's a symbiotic relationship; the trees provide the fungus with carbohydrate energy in return for water and nutrients that the fungi collect from the soil.

"The mycorrhizal networks form when mycelia connect the roots of two or more plants of the same or different species." writes Dr. Simard. "Through careful experimentation, recent graduate Francois Teste determined that survival of these establishing trees was greatly enhanced when they were linked into the network of old trees."

Read more at http://higherperspective.com/2014/10/trees-communicate-fungus.html#2JDGxHGICYc5BSSW.99

The Great Convergence - Asia, the West and the logic of one world, by Kishore Mahbubani, 2013

Explanatory note: The 'review' below does not follow the normal format of book reviews that aim at giving the outline of a text while retaining enough enigma to titillate the reader to purchase or read the book. My approach is halfway between a summary and review with the intent that the reader gets a more detailed account of the contents of the book, including quotes. Personal comments by the reviewer are given in square brackets. Olga Gostin, Nov 2014.

Kishore Mahbubani, 2013, *The Great Convergence - Asia, the West and the logic of one world*, Public Affairs Press, New York.

Mahbubani starts this insightful and affirmative book with the premise that whereas humankind has always lived in different communities, cultures and civilizations, today the widespread forces of globalization are creating a new global civilization. Terms like the North/South divide and developed versus developing nations are fast becoming irrelevant in the new global scenario. The author points to the overall improvement in world-wide consumption of goods and services, decline in absolute poverty, improved education and health services, and the decline in interstate wars as

key indicators that we have never been so interconnected and interdependent. Even 'glitches' such as the GFC, the near-collapse of several European economies in recent times [and dare one extrapolate - the ISIS insurgency?] have resulted in global dialogues and search for solutions beyond the confines of the nation-state. The skeptic might well point to instances of non-intervention e.g. the 2014 annexation of Crimea by Russia, ongoing genocides in parts of Africa and/or Australian maltreatment of asylum seekers, as evidence that not all states are necessarily committed to the emergent global scenario. But Mahbubani's basic premise is worth exploring, perhaps even more so for those of us who do not view the current state of the planet with too much optimism.

In a nutshell, Mahbubani argues that "the people on Earth no longer live in over 100 separate boats" [following the model of the nation-state entrenched by the Treaty of Westphalia in 1648] "but in 193 separate cabins on the same boat", each with its captain and crew responsible for that one cabin, but with as yet, no captain or crew for the boat as a whole (2013:3). However it becomes clear, as his argument unfolds, that a revamped and consolidated United Nations could and should perform that crucial role. As an example of the efficacy of collective action Mahbubani cites the Montreal Protocol of 1987 that ruled to phase out the production of CFCs blamed for the enlarged ozone hole over Antarctica. Noting that North Korea is the last remaining 'hermit kingdom', refusing to opens its cabin to the operation of the boat as a whole; Mahbubani asserts that "continuing on autopilot is not an option" (2013:6).

He therefore unpacks the prerequisites that would facilitate the **global convergence** necessary to address the major socio-economical and political challenges of our times. The prerequisites include commitment to the following: (i) modern science as the major driving force to finding solutions to specific problems; (ii) logic as the fundamental basis of enacting change by "unleashing the virus of logical reasoning in all corners of the world" (2013:37). Though the author acknowledges the impact of western universities and their influence through international student access to these institutions of learning, there is no discussion at all of how lack of logic, or irrational (often religious) thinking - in the west as well as further abroad - might undermine this fundamental prerequisite to enacting the great convergence; (iii) free market economies, an interesting endorsement without caveats about manipulation of such economies by the rich and powerful; (iv) social contract, essentially the endorsement of a civil and binding contract between the rulers [captains] and the ruled [crew], with the affirmation of democracy as a major transformer of relations of power in society; and (v) multilateralism that Mahbubani sees as the "fastest growing sunrise industry in our world" (2013: 44) and the necessary condition for establishing a rules-based global order. In this context he decries the failure of the United States (despite 9 years of negotiation) to sign the Law of the Sea Treaty (1982) aimed at managing 71% of the surface of the Earth. Almost tongue in cheek the author proposes that it shouldn't be that difficult to multilaterally negotiate a Law of the Planet Earth Treaty, accounting for the balance of 29%!

The scenario is thus set for bringing about **global convergence**.

This is not a hypothetical option: the rising tide of common norms cannot be reversed - too many minds are interconnected in a common discourse (2013:48). However Mahbubani emphasizes that a **'theory of one world'** is sorely needed because global theory has not kept up with global practice (2003:51). Specifically he is concerned about the need for new theories to capture the new realities of **environmental pressures** triggered by human impacts in the geological era formally dubbed as the Anthropocene. This must be seen against the fact that "a single global economy is as incontestable as it is irreversible" (2013: 74). Here again one would like to query the author's failure to engage with the gross inequalities that underlie the so-called **single global economy** and the indisputable increased gap between the haves and havenots, despite overall reduction in world poverty (Oxfam Annual Report 2014).

Referring to the 'technological pillar' in a fast shrinking world, Mahbubani celebrates the interconnectedness of our modern world where "we are beginning to live and breathe in a single information universe" (2013:78). Celebrating the surge in connectivity imparted by cell phones and the IT revolution, the author anticipates the emergence of a global conscience as the basic building block of the great convergence. This is already being facilitated by such factors as increased mobility between nations [cabins] and the marked increase and popularity of tourism. According to Mahbubani these interconnections cannot but generate and promote a common aspirations pillar that will undermine conflict and war, and displace cultural and ethnic aspirations (2013:83). Again, one cannot help but consider the doubleedged sword of increased mobility where would-be migrants or refugees often live in ghettoes, alienated from the host culture, and by default fall back on native ethnic loyalties and cultural practices. Perhaps Mahbubani sees these counter tendencies as mere glitches in the overall trend towards global convergence, and therefore irrelevant to his main argument. His postulate that "the best way to neutralize any xenophobia is to create a theory of one world that explains how living in this world creates a better world for all of us" (2013:88) does not really address the social reality of marginalization, alienation, unemployment and social inequality rampant in many societies, and particularly those comprising several different ethnic groups.

With his main theoretical base for the great convergence thus established, the author then tackles what he calls the 'global irrationality' of **unequal representation** in key UN bodies like the IAEA, World Bank, IMF and especially the Security Council, skewed in favour of Western nations though they represent a minority of the world's population. Specifically he challenges the **funding mechanisms** for the UN, making the distinction between *assessed* and *voluntary* contributions where the former (preferred) model is based on GNP. The West, however, led by the USA, has favoured the latter approach thereby enabling manipulation of the UN agenda. "The Western method of controlling the UN system was to starve it of assessed contributions and make it reliant on Western voluntary contributions" (2013:95). Conversely, however, the USA has resented the fact that its 22% (voluntary) contribution to the total UN budget still leaves it with only one vote out of the 193

member nations. Suffice here to note the complexity of defining the workings and financing of the major body (the UN) on which the great convergence depends for effective management of the proposed new world order.

Mahbubani is well aware of these inherent problems and draws attention to further ambiguities inherent to the notion of convergence. At the most fundamental level the premise of convergence creates initial divergence "since what used to be there now is over here" - new global contradictions are being created daily at the same time that old fault lines are finding a new resolution in an ever shrinking global village (2013:117). In chapter 4 entitled Seven Global Contradictions, Mahbubani enumerates them as follows: (i) Global interests versus national interests. In this section the author reverts to his earlier observation that we are not 193 different boats but 193 cabins on a single boat. Like it or not we must look to global governance in clear-cut cases such as the GFC, pandemics [and this before the Ebola outbreak], pollution and terrorism. We cannot, must not, retire to our 'national cabins'. We must move away from situations where the needs of the cabin trump the needs of the boat (2013:118). (ii) The West versus the Rest. This contradiction elaborates on the observation made earlier that the West, accounting for some 12% of the world's population, has disproportional clout in the UN and especially the Security Council where membership is skewed in favour of the West.

(iii) World's greatest power versus world's greatest emerging power. This refers to the rise and rise of China on the international scene and is further elaborated in (iv) Expanding China versus a shrinking world. This addresses the neo-colonial engagement of China with Africa and other parts of the world. (v) Islam against the West. In this section Mahbubani envisages the very real possibility of a clash between Islam and the West since "these two societies seem to be sailing past each other traveling in opposite directions, staring at each other with mutual incomprehension" (2013:132). Specifically he identifies three sources of misunderstanding: historical (the Crusades, Middle East national borders); religious (increased secularization of the West contrasted with deepening religiosity in Islam): and psychological (humiliation and sense of victimhood by Islamic nations from Morocco to Indonesia that have experienced colonialism in some guise in the past). (vi) Global environment versus global consumer. Specifically, Mahbubani notes the paradox of the rapid emergence of middle classes in formerly poverty-ridden societies at the same time that there is growing awareness of global warming and major threats to the environment. (vii) Governments versus NGOs. While acknowledging the important role played by benevolent NGOs working effectively to 'change the chemistry of the planet', Mahbubani observes that Al-Qaeda and drug cartels are essentially NGOs with global connections. [Might one include the armament industry and some multinational companies in this league?]

Convergence, Mahbubani observes, inevitably creates complexity and global contradictions. It is very difficult for Western minds (despite being theoretically open) to grasp this and to embrace the fact that "in the real world, most solutions are right and wrong solutions wrapped together" (2013: 141). To succeed in a world of so many contradictions all nations will have to make complex trade-offs. Black and white

postures will have to be replaced with nuanced policies. "Westerners tend to work within Cartesian frameworks and tend to have a black and white view of the world. One side is right, and the other is wrong. The Asian mind is comfortable with contradictions and paradoxes. Both sides of a contradictory proposition can be correct" (2013:146).

To illustrate this paradox in action, Mahbubani considers the three main axes of geopolitics. (i) The America-China relationship dealing with the historical and economic rise of China. The author cryptically comments: "But although China is still a somewhat politically closed society, it is a closed society with an open mind. America may be an open society, but it is an open society with a closed mind" (2013:147). Mahbubani identifies three systemic challenges to American society: its tendency to group-think, the erosion of individual responsibility and an inability to see how its abuse of power has contributed to many contemporary problems. The most dangerous condition afflicting America today is that it has developed a dangerously distorted discourse about the real challenge that it is facing - which Mahbubani identifies as the inevitability of it becoming the second world power to China in the foreseeable future (2013:169). Against this certainty the author remains bemused that instead of consolidating the role of the UN as a reliable and effective captain of the emerging new world order, the USA continues to undermine it and promote a policy of tied aid and veiled 'benevolence' masking blatant self interest which must inevitably implode (2013:224). The other two axes of world politics are (ii) The China-India relationship and (iii) Islam and the West.

For Mahbubani effective global governance will depend on the integration of three factors: democracy, recognition [and rectification] of power imbalances, especially within the UN, and the rule of law. In his concluding chapter he suggests three ploys that might steer us towards achieving the great convergence. (i) Global conversation. There is no substitute for face to face conversation and the UN General Assembly's "halls are ready, the rules of procedure accepted and most importantly, the UN chamber enjoys global legitimacy" (2013:249). (ii) End anachronistic policies especially those relating to self-serving western interests. (iii) Develop a global ethic - this according to Mahbubani is our most important intellectual challenge. How else might we effectively address instances of genocide, ethnic cleansing and crimes against humanity? How else will we share the responsibility of responding effectively to global greenhouse emissions or to the increasing gap between the super rich and the poor? The author concludes enigmatically "In the next few decades, we will increasingly realise that our village is a world and not that that our world is a village" (2013:259). Personally, I'd like to fling the doors of my Australian cabin wide open and stroll onto the deck of our boat rocking somewhat hesitantly towards the great convergence. May it find safe anchorage.

Because theosophy gives us a vast perspective on life and a deep insight into our own natures, it can revolutionise our motive for giving to others. Diana Dunningham-Chapotin 2002, Past International Secretary of the TOS.