

# Paradigm Explorer

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Increasing Reef  
Resilience



The Scientific &  
Medical Network

# 2018/19

# NETWORK CALENDAR

September 28-30, 2018	Continental Meeting in Bagni di Lucca, Italy, with Laszlo Institute, <i>Catalysing a Paradigm Shift</i>
October 30, 2018	Evening launch of Galileo Commission Report – King's London – <i>leaflet enclosed</i>
November 3-4, 2018	<i>Beyond the Brain 2018 – CentrEd at ExCel in East London – leaflet enclosed</i>
November 5, 2018	Sacred Acoustics Workshop with Dr Eben Alexander III and Karen Newell – <i>leaflet enclosed</i>
November 17, 2018	The Quest for Harmony: A unifying principle in spirituality, science, sustainability and healthcare - 70th Birthday Celebration for HRH the Prince of Wales – <i>leaflet enclosed</i>
January 19-20, 2019	The Heart of the Rose – Sacred Mathematics and the Liberal Arts – <i>leaflet enclosed</i>
January 21-30, 2019	Jamaica seminar – see below
April 6-8, 2019	Mystics and Scientists 42 – <i>Technology, Spirituality and Well-Being</i> , venue tbc – Save the Date!
July 6-7, 2019	Annual Meeting, Horsley Park

## LONDON - CLAUDIA NIELSEN – 0207 431 1177 or preferably email [claudia@cnielsen.eu](mailto:claudia@cnielsen.eu)

We meet at 38 Denning Rd NW3 1SU at 7 for a 7:30pm start. Nearest tube station is Hampstead (Northern Line) or Hampstead Heath (Overground). Cost is £10 for members and £12 for guests. Please confirm attendance so I can anticipate numbers. Friends and non-members are always welcome.

For more comprehensive information on presentations (to include synopsis and biographies) plus summaries of past ones, go to the London Group page of the SMN site at [www.scimednet.org](http://www.scimednet.org).

Please note that sometimes talks have to be rescheduled and information is sent via email so even if you are not in London but would like to be kept informed of changes, please send me an email and I will put your address on the circulation list.

## UPCOMING EVENTS

SEPTEMBER Monday 10th

DR OLIVER ROBINSON

The Seven Harmonies of Science and Spirituality

OCTOBER Monday 1st

PROF FARANEH VARGHA-KHADEM What Makes us Humane

NOVEMBER Monday 12th

DR MARCO SCHORLEMMER

Science, Technology and Contemplative Inquiry

## THE FRENCHMAN'S COVE EXPERIENCE

is unlike any other. It is a unique setting for a remarkable combination of conference and recreation in an unspoilt area near

Port Antonio Jamaica

22nd to 27th January 2019

Suggested travel from UK 21st and return 30th January

Dr Oliver Robinson will present

## THE HARMONIES OF SCIENCE AND SPIRITUALITY

The event will be chaired by David Lorimer and hosted by Diana Clift

Further details from Diana Clift - [di@dianaclift.com](mailto:di@dianaclift.com)



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## Notice to Contributors

All proposed contributions should be sent to the Editor by email as a Word and/or PDF file.

For further guidelines please email:  
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Cover: The living ocean



# A Ship in Harbour

*From Dr Paul Filmore, Chairman, [chairman@scimednet.org](mailto:chairman@scimednet.org)  
Forum: Editorial (Please comment via the members' website)*

*'A ship in harbour is safe, but that is not what ships are built for'.*

*John A. Shedd.*

I am sure you have heard the quote above, or variations, attributed to John Shedd, the American author. If you will humour me for a few minutes before returning to the quote, I would like to mention a radio programme I heard perhaps over a year ago and still has me concerned. The programme was about the youth of Japan and how their lifestyles are being affected by technology and by this I mean 24/7 access to the internet in its many forms. In the programme the presenters were talking to the youth and seeing a profound change in their values associated with relationships. Paraphrased, the outcome of these was towards a lifestyle of staying single, 'enjoying the moment', and playing games online. Officials in Tokyo and elsewhere were worried as they had already seen a decline in marriages and therefore population. Now you might say

this is a good thing, but particularly with IT allowing so readily virtual contact between people, one wonders how far this will go. I am reminded of an Asimov detective story of a murder on a planet where no one meets except virtually! In fact even the thought of being in a person's company on this planet becomes an anathema. But I digress and need to come back to this world and trends that are of concern. In particular the fact that Japan as a leader in IT evolution with the young, so will this happen elsewhere? My feelings are that this trend of the young becoming dislocated from life is growing here in Europe. I can say this with some certainty through my experience of teaching the 18 to 24 year old age group. Alongside the 'totally switched off group' who pay their £9k tuition fees and then never appear in classes, are a smaller group who feel

dissatisfied with what life is offering. When not partying, they are looking around for this something else. They perceive dimly that they should not be 'staying in the harbour', and that extreme sports are not the way forward. These are the students to whom we as an educational charity should be offering an alternative. This is why, this year, the Network has two embryonic projects: one looking at what we can offer to 'students' and secondly to see if we can attract academics to help further, in part with our youth.

If you agree with these sentiments in any way, could you consider how we as the Network can help, or you as an individual can contribute? Perhaps we all know deep down that staying in the harbour is not what what life is about, and that by sailing out, we can help the world become a better place.

## SMN Annual Meeting

*From Nicholas Pilbrow, Treasurer*

The Annual Gathering of the company was held at Horsley Park, Leatherhead on Sunday July 8th 2018 and was attended by 40 members as well as members of the Board of Directors and Trustees of the Scientific and Medical Network Charitable Trust. The Chairman said that whilst the vision of the Network had not changed and still provided a forum and safe haven for those wishing to explore the frontiers of science outside the materialist limits imposed by the current scientific and medical mainstream, we wished to expand membership to include more younger members and those from academia. Task groups have now been set up for this purpose. He also said that the new rules on data protection had now come into force which required the company to limit the availability of information on members within the company to those who specifically confirmed their agreement to it. To cater for this, he proposed two categories of membership, "Members" who agreed to make their information available to other members and "Friends, who enjoyed all the other aspects of membership but whose personal information was not made available. He reported that the company's finances were now in much better shape but we are still looking for other ways of balancing income and expenses without requiring the SMN Trust to fill the gap.

The Chairman reported that Edi Bilimoria, a past member of the Board, had again been co-opted. Accordingly he, the Chairman, Paul Kieniewicz and Joan Walton had retired by rotation. All offered themselves for re-election and the assembled company voted to re-elect them.

Janine Edge, the chair of the trustees, organised a Members' Forum to discuss the key issues of concern among the members. The main issue proved to be that of bring in younger members and academics. A number of solutions were proposed, including contacting retiring GPs, who are retiring earlier, targeting universities, appointing ambassadors from the membership and offering Continuing Professional Development Certificates.



# Consciousness and the Shifting Scientific Paradigm

*Eben Alexander MD*

*After more than 20 years spent as an academic neurosurgeon, my personal near-death experience (NDE) in a week-long coma due to overwhelming gram-negative bacterial meningo-encephalitis in 2008, during which neocortical destruction led to a paradoxical enhancement of phenomenological experience, challenged my prior notions of materialist neuroscience suggesting that the physical brain might somehow create consciousness out of purely physical matter.*

Based on responses to my reports of a near-death experience (NDE) to my physicians, who were quite shocked to see me recovering from what should have simply been a lethal illness, I initially felt my experience had been “way too real to be real,” and thus just a fantastic hallucination.

However, my early forays into my medical records and scans, and discussions with the physicians who had cared for me, revealed a more perplexing scenario. My neurological examinations, laboratory values and MRI and CT scans suggested a level of destruction of my neocortex (the outer surface of the brain, the part that, according to conventional neuroscience, is most involved in our detailed human conscious experience of the world, and the primary target of such an infection) that would not permit any dream, hallucination or drug effect. Yet my experience had been of a reality far more vibrant, alive and real than any I had witnessed in this material world. That ultra-reality seemed a common feature as I reviewed hundreds of similar cases of NDEs. How to reconcile such experiences with my scientific knowledge?

Early on, I was forced back to first principles in my efforts to fathom what I had experienced. I would define these first principles as

starting with: “the only thing any human being knows is the inside of her/his own consciousness.”

As much as human brain and mind might be exceedingly clever at convincing us otherwise, we have never experienced any part of the “world out there” (which includes our brains and bodies, which are “out there” in the perceived world) directly – we have only experienced the internal construct, the model within mind, that we presume to be a fairly accurate representation of the reality “around us.” One cannot lose sight of this “supreme illusion,” as I often refer to it, if one is to arrive at a deeper understanding of the nature of consciousness, and of reality, itself.

Renowned Stanford physicist Andrei Linde summarized this as follows:

“Let us remember that our knowledge of the world begins not with matter but with perceptions. ... Later we find out that our perceptions obey some laws, which can be most conveniently formulated if we assume that there is some underlying reality beyond our perceptions. This model of material world obeying laws of physics is so successful that soon we forget about our starting point and say that matter is the only reality, and perceptions are only helpful

for its description. This assumption is almost as natural (and maybe as false) as our previous assumption that space is only a mathematical tool for the description of matter (p. 12).”<sup>1</sup>

### Quantum physics and consciousness

What is the scientific evidence for mind-over-matter? Specifically, Dean Radin’s work evaluating the role of long-term meditators in influencing the behaviour of photons in the double-slit experiment offers an interesting look at the notions of complementarity, and especially the potential for mind to influence physical matter in a limited but well-defined fashion.<sup>2</sup>

The notion in quantum physics of the “collapse of the wave function,” that the conscious observing mind precipitates an emergent actuality out of the infinite cloud of possibilities in the subatomic world, is one that I believe applies to the whole of reality, not just to subatomic observations that are carefully constructed in a quantum mechanical experiment. The results of experiments in quantum physics thus serve as the “smoking gun” to indicate that all of reality is quantum, which is simply another way of saying that consciousness is fundamental in the universe: that all of the observable universe since before the Big Bang (and all of the rest of the Cosmos that exists anywhere/anytime) emerges from consciousness itself.

The general notion among some physicists is that the subatomic world is quantum and that the macroscopic (human sized, or generally anything larger than a molecule) world is classic/Newtonian, and that there is some level at which one can apply the “Heisenberg cut” between the two. This is a rough assumption/approximation that might be convenient for modeling, but is not part of the underlying reality. All of it is quantum, not classical, given that the constituent parts all obey quantum laws.

This has tremendous implications all around, including our very notions of time flow and causality, spatial extent and 3-dimensional structure, etc. Any initial approach to a deeper understanding of consciousness and the mind-body question (which is what every bit of this discussion is about) will

require significant reworking of our notions of mass, energy, space, time, information and causality. A true Theory of Everything must thus begin with a more robust understanding of the fundamental mechanisms of the interaction of consciousness with the physical world (a view with which physicists Roger Penrose, Henry Stapp, Brian Josephson, Menas Kafatos and engineer William Tiller, among others, might agree).

It is the results of refined experiments in quantum physics, the most proven field in the history of science, that continually reinforce the fact that there is no objective physical reality independent of the observing mind. This conclusion is derived from ever-refined experiments that utilise John Bell’s brilliant insights<sup>3</sup> into the Einstein-Podolsky-Rosen paper in which Einstein expressed his belief that quantum physics was an incomplete theory<sup>4</sup> – he never accepted the reality of “spooky action at a distance” (as he called it), or the mysterious behaviour of subatomic particles through their entanglement across space and time that totally violates our common sense notions about the universe (not to mention the special theory of relativity with its universal speed limit equal to the speed of light).

These experiments, of increasing power and complexity, continue to affirm the reality of entanglement, and especially the remarkable property of *contextuality*, in which the results of the measurements on such particles can be shown to depend on choices made in the mind of the observer. Physicists and astronomers most informed about these modern experiments have come to realise that the universe is truly mental, not physical, as was well argued by Richard Conn Henry, professor of physics and astronomy at Johns Hopkins University.<sup>5</sup>

A more recent article that argues the position of metaphysical idealism even more forcefully comes from computer scientist Bernardo Kastrup, and quantum physicists Henry P. Stapp and Menas C. Kafatos, published in a *Scientific American* blog.<sup>6</sup> They argue in their introduction: “all matter—not only that in living brains—is the outer appearance of inner experience, different configurations of matter reflecting different patterns or modes of mental activity.” They

follow the experimental trail to the surprising, yet inevitable, conclusion: consciousness is fundamental in the universe, not derivative from physical matter.

That is: *All* of the apparent physical world exists within consciousness.

A major problem results from our era of super-specialization, given the grand scale of conscious experience. Physics and neuroscience, as conventionally practiced, fail to encompass the full scale of the properties of consciousness. Also, in this era of ‘publish or perish’ and during the reign of “ $p < 0.05$ ” (allowing too many false positive studies by failing to be strict enough), not to mention the old boy’s network of the scientific publications business (i.e. that the “safest studies” to get published are those supporting the status quo or providing some “new” finding [supporting the old paradigm], as opposed to corroborating an old finding [“replicative studies”] or a negative attempt at demonstrating a new finding) — all these factors lead our current scientific literature (especially in biomedicine and the mind-body question) into a “canoe rocking in stormy waters.” Anomalous data are often the key to refining our understanding of the natural world, and should guide the evolution of our thinking, as opposed to being dismissed because they fail to fit our weak theoretical models.

### Beyond physicalism

So where did the scientific revolution go so wrong, i.e. get led down the false path of physicalism? The entire scientific revolution has focused on the material world, without realising that consciousness is very much a part of the natural world, and not simply an epiphenomenon of the actions of physical matter. Many materialist philosophers, such as Daniel Dennett of Tufts University, are so confused by the phenomenon of consciousness that they deny it even exists:

“Are zombies possible? They’re not just possible, they’re actual. We’re all zombies. Nobody is conscious — not in the systematically mysterious way that supports such doctrines as epiphenomenalism.”<sup>7</sup>

A crucial point is that humans experience a heavily coded version of “reality” that is entirely subjective in nature.



The information substrate that “in-forms” that subjective reality is not an objective physical world independent of the observer – that is the deep lesson from quantum physics that has been such a hard pill for the physicalist camp to swallow. I believe the information substrate is the field of all possibilities, all possible outcomes (which one might call the quantum hologram). Thus, quantum physicists attracted to the infinite parallel universes of Hugh Everett’s 1957 many-worlds interpretation of the measurement paradox in quantum physics should realise that such extravagance of theory is unnecessary. The experimental observations that lead to such thinking are resolved by understanding that we are all manifestations of the one mind, the primordial consciousness in which all of events in the universe occur.

This shift in paradigms does not demand dispensing with all of the knowledge gained through centuries of science: this expanded view of the possibilities simply accepts much of that science, but enhances its ability to explain many phenomena of consciousness and extraordinary human experience that are completely mysterious within the very limited assumptions of currently reigning physicalism.

### Towards a new science of consciousness

The voluminous scientific data concerning exotic human experiences supporting the reality of non-local consciousness<sup>8</sup> (such as near-death and shared-death experiences, after-death communication, death-bed visions, psychic medium communications from the souls of the departed, out-of-body experiences, remote viewing, past-life memories in children indicative of reincarnation, transpersonal psychology experience revealing how readily many of the aspects of our lives can be better understood on the larger stage of souls undergoing multiple incarnations,<sup>9</sup> etc.) provide evidence that the physicalist model of the brain producing consciousness is hopelessly inadequate. A newer model, such as the Primordial Mind Hypothesis argued in our book *Living in a Mindful Universe*, combines filter theory (i.e. the brain is a reducing valve or filter that allows primordial

consciousness into our awareness in a constricted fashion – *vide infra*) with the relational interpretation of quantum physics (from Carlo Rovelli) and the empirically supported conclusion that there appears to be no objective physical world independent of the observing mind.<sup>10</sup> This allows a more facile understanding of the whole host of rogue phenomena listed above. All can be more readily assimilated and understood from this broader perspective of the primacy of consciousness in the universe. The best conventional materialist science seems to offer is denial of the empirical evidence, given its “impossibility” within its restrictive theoretical framework.

An emerging scientific worldview is one that thus sees all of phenomenological human experience (all of the contents of mind or consciousness “in the now,” and all *memories* of such a string of “nows,” for all sentient beings throughout the cosmos) as existing as a pure informational domain out of which all of reality is derived. The entire physical universe is a projection from that phenomenological domain. The phenomenological mental experience is what truly exists, and it generates the physical world as its very strong “illusion” of reality. It is when we observe that illusory physical reality closely enough, through the subatomic assessments of quantum physics, that we detect the absolutely crucial role of consciousness in guiding the emergent actuality out of the cloud of possibilities.

This discussion is fundamentally all about the mind-body debate, which has raged for at least 24 centuries. Along the spectrum from complete physicalism, through various blends of dualistic interpretations, all the way over to ontological idealism, I feel that only the latter (ontological idealism) is defensible from the first principles mentioned above. Idealism also allows for richer understanding of events in human lives, such as the common appearance of surprising synchronicities that lack any sufficient materialist causal explanation. Idealism trumps panpsychism and other quasi-materialist attempts to acknowledge the irreducibility of mind to brain, especially in the broader category of transpersonal

psychology and other evidence suggesting large scale coordination of events in human lives across multiple lifetimes.

Assuming there is but one truth, I believe that all of the dualistic positions relating mind and brain must be convenient half-way points for discussion, but none of them would be the final deep truth about mind and/or brain (or “consciousness”). The physicalist position has never gone anywhere (given the extreme depth of the “hard problem of consciousness,” or what might better be called “the impossible problem of consciousness” if one is approaching from the handicapped stance of pure physicalism) in explaining consciousness. Given broad knowledge of the spectrum of possibilities from physicalism (“brain creates mind”) through all of the dualisms of mind-brain relationships, all the way to idealism, the truly open-minded skeptic rejects materialism as the most implausible.

The evidence that the physical brain is not the producer of consciousness emerges from such common phenomena as terminal lucidity (inexplicable return to conscious awareness before death in demented patients), acquired savant syndromes (in which brain damage allows for superhuman mental function), and numerous recent experiments assessing the great *decrease* in junctional region brain activity seen in the most extraordinary psychedelic drug experiences (*vide infra*). It is also suggested by the overwhelming evidence for non-local consciousness in the form of telepathy, precognition, presentiment, out-of-body experiences, remote viewing, near-death and shared-death experiences, death-bed visions, after-death communications, past-life memories in children indicative of reincarnation, etc.

### Filter theory - William James and Wilder Penfield

The main impediment to scientific progress thus arises from what I view as the false assumption that the physical world is all that exists. My current beliefs align with those of renowned American psychologist William James in that the spiritual realm offers up “The More,” which I view as a top-down organisational

principle that sets the stage for true evolution on a grand scale. Similar to Teilhard de Chardin's notion of evolution towards an omega point, I believe sentient beings in the universe participate in the evolution of information and understanding of the nature of the universe, aligned with a structure suggestive of meaning and purpose in our existence. In many ways, I see this grander evolution of consciousness as the reason for the existence of the entire universe – this astonishing “self-awareness” of the universe for itself, manifest at the smallest level through the self-awareness of individual sentient beings, is tightly interwoven with the purpose of all evolving consciousness.

The scientific method applied to entities within the physical world thus contributes to our deeper understanding of the nature of reality in cases where we encounter inexplicable gaps (“anomalous data”) in the causal chain. For example, several recent studies of the psychic actions of serotonin-2a-type psychedelic drugs, assessed through functional MRI (fMRI) and in some cases also by magnetoencephalography [MEG]) found that the most profound psychic experiences correlated with the greatest *inactivation* of key junctional regions within the brain (notably the thalamus, the medial prefrontal cortex [mPFC], and the anterior and posterior cingulate cortex [ACC & PCC, respectively]).<sup>11</sup>

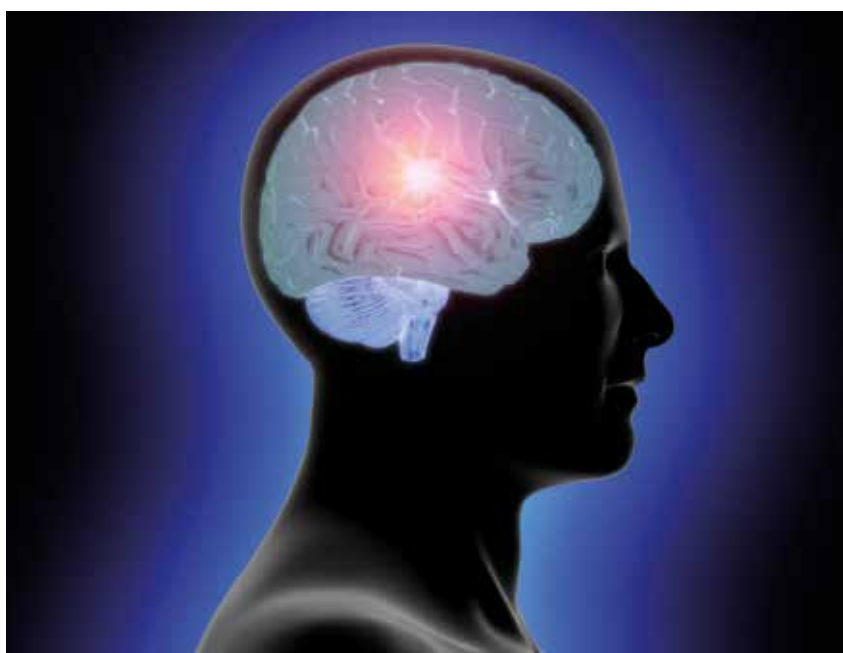
Although surprising to materialist neuroscientists who postulated that the physical brain was the producer of consciousness, this finding is quite consistent with the more expanded view of the mind-brain relationship first suggested by the likes of William James, Frederick W.H. Myers, Henri Bergson and others around the dawn of the 20<sup>th</sup> century. It also completely aligns with views forced on me by my profound near-death experience in a case of extreme meningo-encephalitis that afflicted me in 2008.

This view is also one that would have greatly satisfied Dr. Wilder Penfield, one of the most renowned neurosurgeons of the 20<sup>th</sup> century, whose 1975 book *The Mystery of the Mind*, summarising his decades of work electrically stimulating the brain in awake patients, clearly states that mind and free will cannot be explained by the workings of the brain alone.<sup>12</sup> This grander view is known as *filter theory*: it views the brain as a reducing valve or filter (a “permissive” system) that limits primordial/universal consciousness down to the constricted version experienced most commonly by human beings as our “normal, waking consciousness,” as well as that encountered in dreams, under the influence of psychedelic drugs, and in certain other extreme physiological conditions (near-death), and all manner of “spiritually-transformative experiences” (or STEs).

Filter theory enlarges the theatre of operation of human experience beyond the simplistic assumptions of the local here-and-now of physicalist science. Although some might complain that it merely “moves the goalposts” compared with the physicalist views (i.e., production model, or “brain-creates-consciousness”) it replaces, in actuality it greatly expands the explanatory potential not only for all manner of exotic human experiences, but also for a fundamental understanding of consciousness and the relationship of brain and mind as it pertains to “normal waking consciousness.” Some might see the price paid for this expanded world view, i.e. that the entire higher-ordered chain of causality outside of the physical realm now demands a new understanding of ordering principles as too much to swallow, but I believe it will prove fruitful in reaching a deeper understanding of all of causality in human experience, especially given the abject failure of physicalism to offer any clue as to the nature of consciousness. We must assess the universe on its own terms, and not expect reality to be dumbed down to our level of limited understanding.

We are thus proposing a philosophical position known as ontological (or metaphysical) idealism, which is totally consistent with the notion of a mental universe becoming more acceptable to quantum physicists. Individual brains thus serve as reducing valves or filters through which a tiny trickle of this primordial mind is allowed in, yielding our notions of “self” and of an apparent “here and now.”

Many neuroscientists are still stuck in an outmoded, Newtonian (deterministic) view of the world, totally devoid of any realization of the implications of (more modern) quantum physics. They fail to realize that every neuron is a quantum computer, due to the tight confinement of ions within ion channels and the extraordinary opening of the momentum vector controlling whether or not the host neuron fires (Heisenberg's uncertainty principle). Through this simple mechanism, primordial consciousness can project subjective reality through controlling all relevant neurons for given qualia or perceptions — I submit that the entire apparent





physical universe is generated in this fashion, beginning with the perceptions and related thoughts of sentient beings. Properly examined, we could trace those perceptual realities through the specific neuronal firing (i.e. superposition state selection for all of those relevant neuronal ion channels), working backwards to the apparent physical sources of information (such as photons impinging on the retina, or sound waves impacting the tympanic membranes of the ear, etc.), and thence outward into the maya (or illusion) of the external physical world. But it has never been more than an internal model, built within mind.

In essence, this is what renowned Princeton University physicist John Wheeler was suggesting in his notions of the Participatory Anthropic Principle.<sup>13</sup> Experimental results have confirmed the suppositions raised in his “delayed choice quantum eraser” experiment, such that the free will choice of the observing astronomer about testing for wave or particle properties of photons that left a quasar long ago actually affect the photons all the way back to their origin in the distant past!<sup>14</sup> Wheeler noted his agreement with the position argued by idealist Irish philosopher George Berkeley over two centuries earlier, that “to be is to be perceived.” Only the perception of the photon *now* is relevant, and choices made about observing it in the present are influential in retrocausal fashion – that is, the present has causal influence on the past.

### Top-down causation

The physicalist model assumes bottom-up causation – that is, that the action of subatomic particles simply following the laws of physics, chemistry, and biology, yields all of the causation needed to explain the complex events of human lives. I believe that, given the preponderance of empirical data, it makes more sense to assume a top-down causal chain, in which primordial consciousness dictates all of the events that occur, and the laws of physics (and the principle of sufficient reason) simply apply to what is and is not possible within this purposeful and meaningful sense of causality, one in which human free will is alive and well. After all, South African mathematician George FR Ellis has elegantly argued that “both [quantum] state vector preparation

and the quantum measurement process are crucially based in top-down causal effects.”<sup>15</sup>

The bigger events of human lives are thus governed by this top-down organisational principle originating in primordial mind. The bleak mindless and purposeless view of materialist science, forever relegating humanity to an increasingly minuscule and unimportant speck of accidental flotsam on the vast sea of the cosmos, does not fit the empirical reality of this new worldview. Likewise, the materialist view that humans have no free will (given that they consider consciousness to be merely the confusing epiphenomenon of subatomic particles, atoms and molecules in the brain simply following the laws of physics, chemistry and biology) should be rejected – we have responsibility for our thoughts and actions, and it is high time to own up to that and start manifesting the future that I believe is our shared human destiny.

Personal experiences, or “anecdotes,” are absolutely crucial in understanding consciousness — one cannot limit oneself to double-blind randomised controlled trials as the only avenue towards scientific knowledge. As physicist Richard Feynman said during his Nobel Prize acceptance speech in 1965, “A very great deal more truth can become known than can be proven.” I believe rich insights into the nature of consciousness and any underlying reality can best be revealed by exploring consciousness, that is through meditation or centering prayer (“going within”).

The voice in our head (voice of the ego) is little more than an “annoying roommate” (as Michael Singer put it in his book, *The Untethered Soul*). Our conscious awareness is far grander than that little voice, which also happens to be the voice of reason and logic and communication between humans. But our conscious awareness is not so imprisoned as we come to recognize the limits of that “linguistic brain.” Our language can only help in conveying those more-earth-like experiences for which it is best suited – the deeper truths we can come to know through our own explorations into universal

mind. Our conscious awareness can become much greater, and is essentially without limits.

As a physician, neurosurgeon and thus healer, I have also come to believe that spiritual wellness plays a crucial role in any true physical, mental, or emotional health. This can be more readily achieved by effective use of centering prayer or meditation to manifest the optimal outcome, in self and in others. After all, placebo effect and related cases of spontaneous healing provide some of the most robust evidence that the simplistic molecular medicine and materialist science still taught in medical schools is long overdue for an upgrade. These cases often provide stunning examples of mind-over-matter, supporting the reality of the mental universe (or ontological idealism). They hint at the true power of human free will in manifesting our reality.

### More data or personal experience?

Jessica Utts is a respected statistician who recently served as the president of the American Statistical Association. In her presidential address to approximately six thousand members of that society (from 62 countries) published in 2016, she commented on her work that confirmed the statistical likelihood of remote viewing and precognition as being real effects:

“I can provide a more concrete example based on the research I have done in parapsychology. Parapsychology is concerned with the scientific investigation of potential skills that are commonly known as psychic abilities, such as precognition, telepathy, and so on. For many years I have worked with researchers doing very careful work in this area, including a year I spent working on a classified project for the United States government, to see if we could use these abilities for intelligence gathering during the Cold War. This 20-year project is described in the recent book *ESP Wars East and West* by physicist Edwin May, the lead scientist on the project, with input from his Soviet counterparts.

“At the end of that project I wrote a report for Congress, stating what I still think is true. The data in support of precognition and possibly other related phenomena are quite strong statistically, and

would be widely accepted if they pertained to something more mundane. Yet, most scientists reject the possible reality of these abilities without ever looking at data! And on the other extreme, there are true believers who base their belief solely on anecdotes and personal experience. I have asked the debunkers if there is any amount of data that could convince them, and they generally have responded by saying, ‘probably not.’ I ask them what original research they have read, and they mostly admit that they haven’t read any! Now there is a definition of pseudo-science—basing conclusions on belief, rather than data!

“When I have given talks on this topic to audiences of statisticians, I show lots of data. Then I ask the audience, which would be more convincing to you—lots more data, or one strong personal experience? Almost without fail, the response is one strong personal experience! Of

course I’m giving you an extreme example, and I think people are justifiably skeptical, because most people think that these abilities contradict what we know about science. They don’t, but that’s the subject for a different talk!”<sup>16</sup>

It is this desire to facilitate personal experience that drives much of the work we do, as reported in my third book, *Living in a Mindful Universe*, co-authored with my life partner and the co-founder of Sacred Acoustics, Karen Newell.<sup>17</sup> Our work is not only a direct indictment of the failures of scientific materialism in explaining consciousness, but it also offers a metaphysical framework that would support deeper understanding of human experience. In addition, we offer tools that we have found to be especially useful, not just in ourselves but also in group workshops and by reports from a larger audience.

Audio brain entrainment provided by Sacred Acoustics influences consciousness at a deep and primitive level, allowing a more robust exploration of the primordial mind that we propose as the origin of all of reality. Binaural beats, and especially the proprietary form involved in Sacred Acoustics’ NeuralHelix® ([www.sacredacoustics.com](http://www.sacredacoustics.com)), presumably affect the lower brainstem, as opposed to acoustic effects in the more recently evolved neocortex. I believe this targeting of the more archaic brain structures involved in consciousness might explain the basis of their enhanced power to liberate conscious awareness from the illusion of self, and of the here and now. Such powerful tools for the personal exploration of consciousness are exactly what Dr. Utts found to be in demand – not more data, but personal experience. The answers truly lie within us all.

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# Stephen Hawking:

## Recollections of a Singular Friend

*Bernard Carr*

*Stephen Hawking's scientific life was one of extraordinary achievement, with numerous contributions to cosmology, black hole physics, relativity theory and the search for a theory of everything. In the year before his death I was interviewing him for a forthcoming book on the golden age of relativity theory and Stephen was certainly one of the brightest nuggets of that era. However, his influence went well beyond his own research. Not only did he succeed in generating public interest in some of the deepest questions of physics but he was also inspirational in his fight against disability and the use of his fame to support numerous important causes. Despite his well-known communication problems, he became one of the greatest science communicators of our age.*

Numerous obituaries and commentaries in the days since his death have described Stephen's scientific contributions and iconic status. Here I would like to tell a more personal story – about what it was like being one of Stephen's first PhD students and becoming his friend. This may appear rather self-indulgent but I hope my recollections can be justified on the grounds that they reflect his qualities as a human being rather than a famous scientist and show a personal side which is missing in most recent accounts. At the end, I will also mention what lessons his life may hold for the SMN.

Stephen had around 40 PhD students, many of whom worked more closely with him than me and over a longer period. So I don't have any special insights on this account. Nevertheless, I was working with him at an extraordinarily exciting time, when he discovered that black holes emit thermal radiation due to quantum effects. This was one of the most important results in 20th-century physics, whose implications are still being unravelled 45 years later. Even though it has still not been confirmed experimentally – otherwise he would surely have added the Nobel prize to his long list of awards – few people doubt that it must be true. This is because it unifies three previously disparate areas of physics – quantum theory, general relativity and thermodynamics – and is such a beautiful idea that it almost has to be true. The renowned physicist John Wheeler once told me that just talking about it was like “rolling candy on the tongue”.



*Stephen at Caltech in 1975*

Stephen was not so famous when I began my PhD in 1972 but his brilliance was already clear to his peers and I found it rather daunting when, on becoming his research student, I was informed by one of my tutors that he was the brightest person in the department. (The tutor was the physicist Jeffrey Goldstone, who might himself have been a contender for that position.) Nevertheless, it soon became evident that my relationship with him would not be the usual type of supervisor-student relationship. In those days, before he had his entourage of nurses and assistants, students would necessarily have to help him in various ways on account of his disability. This was not an arduous



task but it did mean that my relationship with him became quite intimate. Indeed, I shared an office with him, lived with his family for a while and accompanied him as he travelled around the world, giving talks and collecting medals. People sometimes ask me if working with Stephen was the high point of my career. I hope not - since this would imply that it has been downhill since the start! - but it was certainly a tremendous privilege.

I met the Hawking family for the first time, just before I began my PhD, at a conference on black holes at Les Houches in 1972. This was one of the first meetings on the subject and played an important role in its development. My presence there involved an interesting coincidence. I was not accepted for the conference myself but I was a summer student at CERN in nearby Geneva and there was a spare place one week. So Stephen tried to send me a message via a colleague, inviting me to visit. I never received this message but I decided on a whim to visit that week anyway. It was a wonderful experience - my first conference - and meant that I got to meet all the prominent figures in the field even before starting my PhD. Stephen assumed that I was there because I received his invitation but at the end of the week the person who was supposed to

have delivered the message appeared and apologized for not having done so! I've always been fascinated with such coincidences and feel that they indicate that there are mysteries in life that may go beyond standard physics. However, Stephen himself may not have shared that view.

When I started my PhD a few months later, I soon discovered some of Stephen's singular characteristics. The first, of course, was that he was very smart. Students are probably always in awe of their supervisors and with Stephen the awe was even greater. Indeed, on matters of physics, I always regarded him as an oracle, just a few words from him yielding insights that would have taken weeks to work out on my own. However, Stephen was only human and not all encounters led to illumination. Once I asked a question about something that was puzzling me. He thought about it silently for several minutes and I was quite impressed with myself for asking something that Stephen couldn't answer immediately. His eyes then closed and I was even more impressed with myself because he was clearly having to think about it very deeply. Only after some time did it become clear that he had fallen asleep! Nowadays I also sometimes fall asleep while talking to students, so I recall this incident with amusement.

The other human side of Stephen was that he didn't suffer fools gladly and sometimes got annoyed. One of the stories put around is that he would vent his frustration by running over students' toes. I'm not sure about that - he once run over the toes of the Prince of Wales and I'm sure that was just an accident. It certainly never happened to me but then he didn't have a motorised wheelchair in those days. On the other hand, I well recall one occasion when I made a remark in the department common room at tea-time that showed that I had misunderstood what he'd been saying. Stephen screamed "No" so loudly that his wheelchair shot back halfway across the room under the recoil. I was most impressed that a single word from him could have such dramatic consequences.

I also learnt about Stephen's stubbornness and determination to continue doing things for himself as long as possible, despite the relentless progress of his illness. For example, because he had an office in both the Department of Applied Mathematics and Theoretical Physics and the Institute of Astronomy, I also had offices in both places. I recall that he sometimes gave me a lift (probably illegally!) between the two places in his 3-wheeled invalid car. I found this rather scary because I thought he drove faster than was safe.



*Visitors to the Caltech astrophysics group in 1975, including Robert Dicke, Werner Israel, Roger Penrose (back row from left) and Kip Thorne, Stephen and myself (front row from left).*

Later he had to discontinue the use of the car but he never lost his drive and the desire to travel as far and wide as possible. One regret is that he didn't live long enough to achieve his dream of going into space.

Although I'm generally avoiding a discussion of his scientific work, I will say a little about my own collaboration with him. Our first paper together was about black holes that may have formed in the early universe due to the great compression of the big bang. Stephen wrote a pioneering paper about such primordial black holes (PBHs) in 1971 but there was a snag because the Russian astrophysicists Ya.B. Zeldovich and Igor Novikov had argued that any black holes formed in the early universe would grow enormously to around a thousand billion solar masses today. The existence of such huge black holes is excluded, which suggested that PBHs never formed. However, their argument neglected the cosmological expansion and we were able to show that such growth was impossible, thereby allowing the possibility that PBHs may have existed after all. We actually made this discovery independently. I recall rushing excitedly to his office to give the good news and being rather dismayed to find that he had just come to the same conclusion by doing the calculation in his head!

Perhaps the most important aspect of the conclusion that PBHs might have formed was that it motivated Stephen to consider the quantum effects of small black holes and only primordial ones could be small enough for this to be important. I recall discussing this over tea one afternoon. He was puzzled to be finding a large quantum flux, so I must have been one of the first people to learn about this and I've always regretted that I didn't spot the implication and remark "Obviously, Stephen, they're radiating thermally". Nevertheless, I was fortunate to have a ringside seat during these developments. It also enabled me to be one of the first people to study the cosmological consequences of the effect and thereby make my own small contribution to the subject.

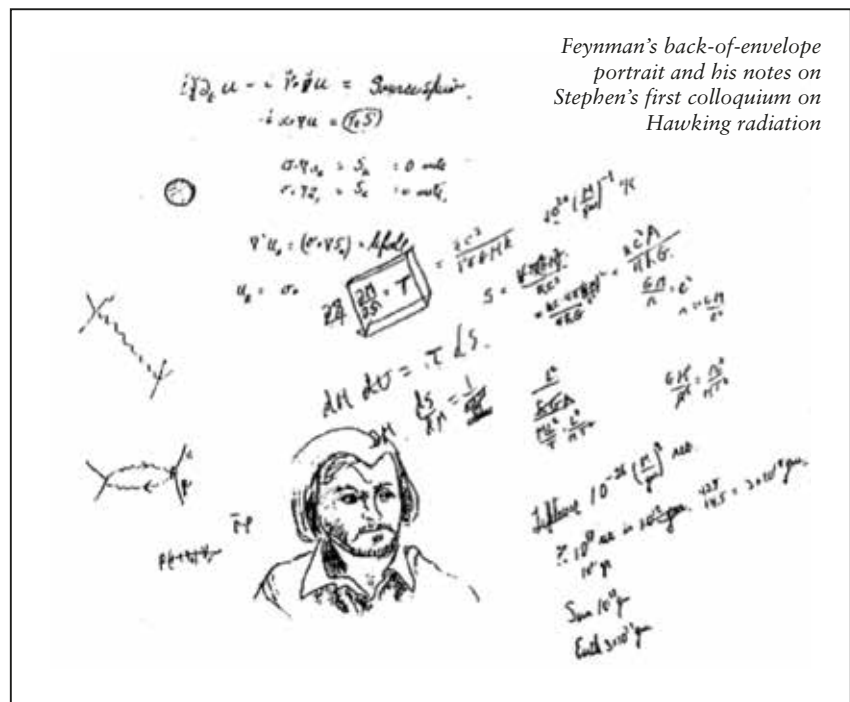
After 50 years we still don't know for sure whether PBHs ever formed but this illustrates that it can be important to think about things in physics even if they may not actually exist. Of course, it's much more interesting if they

did form and – since I've spent much of my life thinking about them – it's gratifying to find that there is now great interest in the possibility that PBHs too large to evaporate could provide the dark matter which surrounds galaxies and dominates the density. Also the recent discovery by the LIGO experiment of gravitational waves from coalescing black holes requires that they be larger than the ones which derive from ordinary stellar collapse, so they too could be primordial. In this case, Stephen's 1971 paper on the subject will have been one of his seminal contributions and I will have been lucky to have also played a role in the birth of the subject.

In 1975 Stephen visited Caltech for a year as a Fairchild scholar. I was in my final year as a PhD student and was invited to accompany him there and live with his family. It was an ideal arrangement from my point of view because I lived rent-free in exchange for helping Stephen at work and home. More importantly, the Hawkings welcomed me as a member of their family and I have remained close to them ever since. After the rather cloistered life at Cambridge, I found Caltech and California exhilarating – like living in another century – and I know Stephen felt the same. In some ways the facilities were much better there since they provided him with a house and built ramps everywhere for his wheelchair. I think it was quite a battle to get ramps at Cambridge.

One of the great excitements of visiting Caltech was meeting the brilliant physicist Richard Feynman, who was regarded almost like a god there. I recall our going off to one of his lectures shortly after our arrival. He used to visit our office quite often and, since Stephen's voice was already quite weak, I would help him understand what Stephen was saying – linguistically rather than intellectually of course! On one occasion, I recall Stephen remarking that something was only a matter of a sign and Feynman retorted that he'd only become famous because he'd sorted out a sign!

Stephen gave his first proper seminar about Hawking radiation at Caltech and Feynman was in the audience. I was at the front helping to show the slides and afterwards someone told me that he'd been drawing my portrait on the back of an envelope. So I contacted his secretary, only to discover that he'd thrown the envelope away. However, she kindly retrieved it for me from the garbage bin and it is now one of my treasured possessions. My head is at the centre and around it are his notes on the seminar and some Feynman diagrams. I didn't tell Stephen at the time because I thought he might be annoyed that Feynman wasn't just focusing on his talk but now it serves as a wonderful memento of that occasion. In due course, Stephen became even more famous than Feynman – which made my envelope even more valuable.



*Feynman's back-of-envelope portrait and his notes on Stephen's first colloquium on Hawking radiation*





*Stephen and myself at Caltech, with his secretary and another student Peter D'Eath.*

During our year at Caltech, Stephen was awarded the Pius XII medal, so we flew to Rome to receive it. One of my vivid memories of that trip was his insistence that we visit the Vatican archives to read Galileo's recantation. He was born 300 years to the day after Galileo's death and I think he always felt a strong affinity with him because they were both rebels. Galileo was the first modern scientist to realize the importance of observation and to challenge the received wisdom of the ancient Greeks. Stephen was like that too, always showing great boldness in discarding old ideas which he regards as an obstacle to progress, so I think that's why he felt an affinity.

While visiting Rome, we also met the famous physicist Paul Dirac, another of Stephen's heroes and his predecessor as Lucasian Professor. He won a Nobel prize and did more than anyone in the 20th century, with the exception of Einstein, to advance physics and change our picture of the universe. They were members of the same department from 1962 to 1969, but never saw each other because Dirac belonged to the old school, who preferred to work in College rooms. They finally met in Rome because Dirac was a member of the Pontifical Academy of Science, who had awarded the medal. When Stephen thanked him for nominating him, Dirac replied

that he'd nominated someone else, so I was surprised at his rather undiplomatic candour. But he then added that he had decided Stephen was the better candidate after all and had told the Pontifical Academy so.

I did not work with Stephen again after finishing my PhD but I remained in Cambridge for another ten years, so we remained friends and I continued to accompany him to conferences. In 1985 I joined him on a trip to China. Our host was the astrophysicist Professor Fang Li Zhi, whose institute had been banished from Beijing to Hefei during the cultural revolution. He later became hugely popular among Chinese students and took refuge in the American Embassy in Beijing during the Tiananmen Square riots before moving to America. Stephen's talks were always packed and on one occasion I was amazed that even one of my talks was packed. Later it transpired that this was because I'd been mistaken for my near namesake, Roy Kerr, who was famous for discovering the rotating black hole solution. During a long train journey with Stephen from Hefei to Beijing, I recall reading the first draft of a popular book he was writing. My initial impression that it would never sell proved inaccurate since it eventually turned into *A Brief History of Time*!

Shortly after his return from China he fell seriously ill with pneumonia on a visit to CERN. I flew out to Geneva to help and recall my gloom as he flew back to Cambridge with his wife Jane in a specially equipped little plane since I didn't expect him to survive. However, his life was saved by a tracheotomy and - like so many others - I underestimated his life force. He could not communicate at first but his friends used to read to him in Addenbrooke's hospital. On one occasion I recall reading a rather risqué passage from a David Lodge novel in which the central character visits a strip club. The description was very explicit and I felt embarrassed reading this in the presence of the nurse, so I asked Stephen if I should continue. A smile then crossed his face and his eyes twinkled vigorously, so that's when I knew he would recover. However, I never guessed that the next major phase of his life was only just beginning and that I was about to witness his transition from a brilliant physicist, known only to professional colleagues, to an international superstar.

Much has been written about Stephen's fame. He clearly enjoyed this and valued the opportunity it brought him to highlight various social-political issues. We sometimes discussed the topic and I recall one lunch at Caltech in 1975 when we were debating the nature of fame. He finally defined it as being a state in which one is known by more people than one knows. On the way back to the office, a passing stranger said "Hi". When I asked Stephen who it was, he answered "That was fame" - a nice illustration of his quick wit. Ten years later the number of people who knew him was probably a million times the number he knew, so he presumably modified his definition.

I am sometimes asked where Stephen stands in the pantheon of great physicists. There are many ways of being a great physicist and they cannot be ranked like runners in an Olympic race. Stephen himself never claimed to have the status of Newton or Einstein but I strongly disagree with people who suggest that his scientific eminence has been exaggerated because of his disability. It would take too long to summarise his contributions here but nothing could better testify to their importance than the fact that his ashes were recently interred in Westminster Abbey, alongside those of Isaac Newton. I was privileged to attend this unique



occasion and I doubt any other contemporary physicist will achieve such an accolade.

Of course, there was a lot of media hype and his disability clearly played a role in his becoming an iconic figure. But he used that to good effect to instill public interest in some of the deepest questions of physics. He also coauthored the series of excellent children's books with his daughter Lucy and it's odd to reflect that a contribution I wrote for *George's Cosmic Treasure Hunt* has probably been read by more people than any of my scientific articles.

His sense of humour was legendary and I once suggested that he should write a book of jokes and amusing anecdotes (*Surely You're Joking Mr Hawking?*), along the lines of Feynman's famous book. However, this sometimes had a down side because - even before he lost his voice - it had become very weak, so he had to repeat the punchlines of his jokes many times. For example, my friend Carlos Frenk was once carrying him downstairs after one of Martin Rees's parties at Cambridge when the light went out. Stephen said something but Carlos couldn't understand him, so Stephen kept repeating it louder and louder. Carlos became increasingly concerned and finally he put him down and rushed upstairs in a panic to announce "Come quickly - there's something terribly wrong with Stephen." It finally transpired that he was just making some joke about the lights going out!

I moved to London in 1985 but maintained my friendship with Stephen and his family. Along with his other former students, I would join him at conferences to celebrate his key birthdays, the last one being his 75<sup>th</sup> in 2017. For me one highlight of the 60<sup>th</sup> was the conference banquet, at which his former students and first wife Jane (who was deemed an honorary student) sang a song which I had written to mark the occasion. Some of the younger ones were reluctant to participate at first but fortunately the Edge of U2 fame was present and agreed to participate, after which everyone else joined in.

Another memorable occasion was attending the premiere of the Oscar-winning "Theory of Everything" in Leicester Square a few years ago. As is well known, this provided a moving portrayal of Stephen and Jane's relationship. However, I always found the title rather ironic since the film was primarily about love, which is a phenomenon that a Theory of Everything will surely never explain. I know that Stephen enjoyed it because I was sitting close to him, so I envisaged the newspaper headlines the next day "Stephen Hawking finds Theory of Everything....enjoyable!"

I last met Stephen at a small tea party to celebrate his 76th birthday last January. I then left for a visit to Japan and was worried about him because I knew he was ill. By chance I returned to London just a few hours before he died and I found some consolation in that. Another coincidence is that he died on Einstein's birthday, having also been born on Galileo's deathday, so it's odd that he should be connected to his two greatest heroes in this way. I doubt Stephen would have attributed much significance to this but he always acknowledged that time is a mystery we don't fully understand. The synchronicity is certainly fitting because his first major discovery was that spacetime trajectories can have singular endpoints where strange things may happen. Stephen was the most singular person I have ever known and I feel truly privileged that he was my friend.

As a postscript, I would like to make some remarks about Stephen and the SMN. As is well known, he was not enamoured with religious ideas and - despite being blessed by four popes and interred at Westminster Abbey - he certainly never aspired to be spiritual. I believe that even his famous reference to "knowing the mind of God" in *A Brief History of Time* was tongue in cheek. I once asked him to speak at the SMN meeting on "God or Multiverse?" but I never regarded him as a likely Network recruit. Nevertheless, he did care passionately about and was an influential proponent of some of the ecological and social issues which the SMN has championed.

I did occasionally discuss my interest in psychical research with Stephen. Indeed, at the end of my undergraduate studies, I had to choose between doing a PhD in physics or parapsychology. My ambition was to extend physics to accommodate mind and I wanted to study psi because this provides evidence of a link between matter and mind. However, I realized that I could hardly achieve my ambition unless I first mastered physics and some of the fascinating new insights this was revealing. Also there was little prospect of getting a job in parapsychology at the time and I was wisely advised that I might benefit the field more in the long run if I first established myself in a more conventional discipline. I therefore chose to do a PhD in cosmology and was very fortunate to be assigned such a special supervisor.

Stephen, incidentally, was sceptical of psi phenomena, although he had read J. B. Rhine's books as a teenager. This is illustrated by an incident in which I had a dream in which he explained how I could solve an equation. When I awoke, I remembered the dream and the advice turned out to be correct, so I mentioned this to Stephen to check whether he had shared the dream. He hadn't and dismissed any suggestion that telepathy might be involved, so I joked that in that case he would not be on the paper! After 45 years I'm not confident this memory is accurate - I doubt that I would have been so cheeky - but I do recall the dream.

People sometimes ask me why I didn't try to interest Stephen more in spiritual matters but I always avoided that. This is partly because he had an antipathy towards philosophy and theology but also because the spiritual path is not suitable for everyone and he would surely not have made such an enormous contribution to physics if he had turned his attention in that direction. Humanity needs both spiritually and scientifically enlightened people but only a few of them need to be - or would want to be - involved in the dialogue between science and religion.

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*Bernard Carr is a Professor of Mathematics and Astronomy at Queen Mary University of London. His professional area of research is cosmology and astrophysics and includes such topics as the early universe, dark matter, black holes and the anthropic principle. For his PhD he studied the first second of the Universe under the supervision of Stephen Hawking at the Institute of Astronomy in Cambridge. He is the author of *Universe or Multiverse?* and *Quantum Black Holes*. He also has a long-standing interest in the relationship between science and religion, and especially in psychical research, which he sees as forming a bridge between them. His ambition is to develop an extension of physics which can accommodate mind, consciousness and spirituality. He was President of the Society for Psychical Research in 2000-2004 and Chairman of the Scientific and Medical Network in 2011-2016 and he is currently a Vice-President of both organisations.*

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# Health and Wholeness

Neil May

*“In fact” said Mustapha Mound “you’re claiming the right to be unhappy... not to mention the right to grow old and ugly and impotent; the right to have syphilis and cancer; the right to live in constant apprehension of what may happen tomorrow... the right to be tortured by unspeakable pains of every kind.”*

*There was a long silence. “I claim them all” said the Savage at last.*

The World Health Organization (WHO) defined health in its broader sense in its 1948 constitution as «a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.» But is this correct? And is it a good definition – is it helpful practically and morally?

What if complete well-being is impossible? Or alternatively what if health sometimes includes or even requires disease and infirmity?

For example, is it healthy not to become ill with grief at the death of your child? Or is it healthy if children do not get childhood illnesses? If you have an infirmity, does it mean you are always unhealthy? Or is it healthy for an old person to run away from illness and infirmity, rather than accepting them, and ultimately accepting death? Could the idea of being healthy and having complete well-being in fact become a burden to us, forcing us sometimes to pretend to be well and happy, or if we become irrefutably ill, making us feel that we have somehow failed, and are guilty of some personal or moral weakness? By positing such a utopian notion of health, have we not thereby condemned large numbers of people to an unrelenting life of “healing”, subjecting them to endless scientific or psychological trials and all the anxiety, fear and tedium which accompanies this?

Health, as stated above, is not merely the absence of disease or infirmity. But perhaps it is not their absence at all. Being healthy does not necessarily mean not being ill. On the contrary, good health can

and sometimes should mean being ill. But this is not the point. To define health by disease is perhaps to ask the wrong question, to go off on the wrong path. Rather may it not depend on whether or not, and how, we respond to our outer and inner environment, to our world and our soul? Being healthy perhaps means being fully alive to our lives in their fullness. It means responding to the world and our inner state honestly and openly.

In this way being healthy would mean enjoying the benefits and blessings of a time and place, but also bearing the problems and evils of a particular life, and suffering with them. It would mean being as open to the world in all its reality as is individually possible. This is what gives us character, humanity and integrity, rooted as they should be in love and truthfulness. The opposite of health is not illness, but isolation, being closed off from reality and from all those many influences which shape our lives and which we in turn affect and shape.

The consequences of different ways of thinking about health, and of basing policy, funding, social networks and personal aspirations and fears upon them, are considerable. I shall argue that the current definition of health is both harmful to individuals and to society as a whole, and that for this reason alone we need to change it. Of course more fundamentally it is perhaps the truth (or lack of it) of our current definition and how it speaks to us, which is the more serious failing, and whose consequences go far beyond the notion of harm.

In order to understand and reclaim the word health from its current ideological dead end, we need to think more about the word itself, and to feel our way into a new sense of it. One way to do this is to look at the origins of the word and those words which are close to it, etymologically and poetically. The word “health”, we are told, comes from the Old English *hælb* which means “whole, hale, sound, of good omen”. It is also related to the word *halig* – “holy”, which is also related to the idea of wholeness, of “that which must be preserved whole or intact, that cannot be transgressed or violated”. The word is also related to the German greeting *Heil*, and the modern English *Hello*, which convey greetings wishing “health, happiness and good luck”. It may also be related to the Old English word *hæleþ* meaning “man, hero, fighter”.

These connections are worth pondering. It seems at first as though the WHO definition of a “complete state” of well-being (i.e. as “wholeness”) is justified by this etymology. However, on further consideration, it becomes clear that completeness and wholeness, for all their apparent similarity, are in many ways opposed concepts. For something to be complete, it must be separate, objectifiable and finished, and, as such, not subject to further change or interaction. On the other hand wholeness can be understood both practically and philosophically as boundless, and as such constantly changing. This difference appears if you attach the words to “person”: a complete person, or a whole person.

A whole person is not a definable entity unless isolated from his/her context. But if isolated, then part of the person will not be present. This is not only a fact in regard to the social or emotional wholeness of a person, but also applies to us biologically, as we are in constant exchange with bacteria, fungi, and other biological as well as chemical agents and air itself both within and outside our bodies. Our social, physical and mental wholeness implies or requires relationships with other people, animals, work, even material things, and all of these in turn are in relationship with other people, animals, things etc. In fact, since everything is linked to everything else, our wholeness is intrinsically linked to everything else in creation, not only now but in

the past and future. Our individual character derives from this whole, and reflects the whole through our particularity. Furthermore, just as the Whole (of creation) is never the same from one moment to the next, so each individual part of creation, from the smallest atom or speck of dust to every single human being, is constantly changing, and is never the same. If anything were the same even for one millisecond, creation would have ended. Our reality is part of a continual transformation, just as the whole is continually transformed. So we cannot isolate or define the whole either in space or in time.

In this regard, what does the wholeness of a person mean? To what does it refer and how do we judge whether something is more or less whole? It cannot be in regard to completeness, as to how far a person can be considered a finished or separate being, as this would mean to cut them off from their context, and make them less than whole. To know a person as a whole perhaps rather means to understand all the aspects of their life and personality, not in detail necessarily, but how the intrinsic qualities of a person interact with and are shaped by their context, not only in the past, but now, in an on-going manner, changing with the changes of their time. To be whole or to know a person as a whole perhaps means somehow to bring all the aspects of a person together into balance, even those aspects which are difficult or which conflict with each other. This is very different from thinking of a person as complete, as though he or she were a toy doll or a jigsaw puzzle, made up of definable and finite parts, which fit together neatly.

Perhaps we should consider other meanings of “health” to further deepen our understanding of this word. For example, what is meant by health as “of good omen” or “good luck”? These meanings indicate that health is, perhaps, also a relationship of a person to destiny or fate, or to the gods or God. Fate is something beyond our control, but which has meaning. It is part of a pre-ordained order. It is something which nowadays is not accepted in medical science, but which in times of trauma or accident, we still may resort to, both for consolation or for explanation. It is something much greater than our own lives and in some ways greater than our understanding. It is a very common

concept in many traditional cultures and faiths, and is not considered a random force (as in the “luck of the dice”), but part of a greater divine plan, articulated in phrases such as “It is written” or “it is in God’s hand”. Such an attitude can considerably reduce anxiety and anger about one’s condition, often reducing the suffering from pain or infirmity, and allowing core values such as love, truth and goodness to thrive in spite of the illness.

Consideration of the concept of fate can to some extent help us to understand the important but complex difference between pain and suffering, a difference which is often neglected in medicine. Suffering can be characterised to some extent as the conscious human response to pain (whether physical, emotional or other). It can be argued that only humans suffer (as opposed to just feeling pain), as suffering requires consciousness of self and of time (the memory or anticipation of pain often being a cause of suffering). But whether or not and how much we suffer from a particular pain is often dependent not on the amount of physical or emotional dis-ease that we experience, but on our attitude to pain and adversity. People can still be happy (and not suffering) even with severe discomfort, as experienced, for example, by many older people with arthritis, ulcers, or other illnesses. On the other hand, people who are anxious about illness or disaster can suffer considerably, even without physical pain or accident. So our attitude to the future, as well as to the present, which formerly was commonly thought of, at least partly, as the working of fate or as God’s will, can have a considerable effect on suffering. Modernity has to some extent banished these concepts and replaced them with an uncertainty and anxiety about the future, a future which it seems now to be entirely our responsibility to survive or if possible, control, and this in turn has changed our attitudes to health and healing, making us search for safety and certainty where previously we had accepted risk and the unknown.

This is not to say, of course, that all suffering is just a form of unnecessary worrying or mental self-harm. Just because someone believes in God’s will or fate, suffering does not disappear, though it may be changed in its nature, and be less self-absorbed



or resentful. Suffering, if properly understood, is, to some extent, what makes us human, opening our hearts and minds to the pain and sorrow of others, and probing the meaning of pain and evil in this world. In Christianity at least, it is the suffering of Christ which unites heaven and earth and redeems us all. It is Christ's suffering, not his pain, which does this.

In this context, we can also try to probe the meaning of health as "holy", as something given by God and to be honoured as such, but also as "that which cannot or should not be transgressed or violated". Does this imply that "health" is something of a taboo, or a commandment; that says that the whole should not be reduced to less than what it is, an injunction that "you shall not make a person separate, you shall not divide them up or reduce them to their parts", as this dissection violates and transgresses the reality of the whole person and the whole itself? It may be seen that this definition of the whole was a critical part of the attitude to the body in many traditional cultures, where the body is considered sacred even after death, and medical dissection of corpses is forbidden. Or perhaps this "holiness" is a reminder of the mystery, inherent indivisibility and all-encompassing connectivity of the whole, healthy person.

Finally, the meaning of health as related to "man, hero, fighter" brings with it the sense of an archetypal Man, of the human in his or her fullness, striving with the world and with fate, overcoming normal limitations, becoming what they were meant to be. All of these meanings have a mythical or religious undertone. They speak of both acceptance of destiny, but also of our duty to fulfil and perhaps, like Jacob in the Old Testament, to wrestle with our destiny through the dark night – to risk our personal and undefined but nonetheless felt wholeness in struggle with the unending and incomprehensible wholeness of God.

With this deeper understanding of the word "health", we can see now that the idea of health as somehow a discrete and attainable state of purity and completeness standing in opposition to the world is probably misguided. In fact, health (just as wholeness and holiness) is really about a right relationship to our world and to our selves (as body,

mind, heart and soul), a relationship which is marked by acceptance, reciprocity, balance, authenticity, generosity and heroism.

This may sound as though we are asking unreasonable things of ordinary people. Not everyone can be balanced, authentic, a hero in their lives. Or can they? In fact, people show remarkable heroism in their illnesses and treatment even now, but in a way which is often drained of meaning and is actually demeaning to the sick. It is a deluded kind of heroism, which is often invoked in statements such as "he lost his battle against cancer", as though cancer were an alien force, and not part of the whole, not something which also has meaning. What is often genuinely heroic in people with cancer is their enduring care for others, even in the midst of pain, and their kindness to the doctors and nurses who are often misguidedly attempting to treat them, even when it is causing more physical and mental distress. Transcending this constant intervention to be able to see the further shore and to leave this life with peace and blessing is, indeed, truly heroic.

Much better and indeed easier is the definition of health proposed here as a right relationship. To be healthy does not mean never being ill, protecting yourself from germs, fighting disease, declaring war on cancer, or stuffing yourself with vitamins and Lemsip when you've got a cold so that you can still work and party like you were only 20 years old. Being healthy means having the right attitude and relationship to your world and to your self. It is entirely about meaning.

However, this does not imply in any way that all medicine is bad and that all illness and disease is good. In most cases the reduction of pain and suffering is, of course, a good thing. Indeed, it is suggested that we should adopt this proposed concept of health because it would in fact lead to a huge reduction in suffering and a renewal of true medicine and medical practice. It would reintroduce the idea of healing as the restoration of balance and right relationships, and most forms of treatment would be directed towards this. Balance is indeed physical, mental and social, but it is not utopian, and it is not involved in warfare against viruses and

bacteria. Rather it is living with reality and continually deepening our understanding of ourselves, our world and our destiny.

This is ultimately about the truth of reality itself. The understanding of reality as expressed through modern medicine and our general culture is that reality is somehow objectifiable and can be reduced to its parts. Reality is the physical world and this is either inert, and alien, or is hostile and competing with us. This is why we believe we can and should desire to achieve "completeness", a completeness which is a defence against the forces of the world, which is self-sufficient and isolated or immune. However, this is not how reality is understood in most traditional cultures or in many people's personal experience. In much medieval, tribal and mystical thought, the world is not inert and without meaning, but everything within the world has meaning, both in regard to itself, and, importantly, in regard to human beings. Things desire to be understood and to reveal their real meaning. They are a part of a creation imbued with meaning and purpose. They are not hostile or competitive, but desire to be part of our world and to enhance our lives. Human beings are those creatures which have the power to understand this revealed meaning and to enjoy it, and in this sense this is our true intellectual task and destiny.

As such health as a right relationship to the world is not just a statement about respect or balance, but about knowledge. In having a right relationship we learn about the world and we reveal its meaning, a meaning which is implicit in it, and which the world desires to be revealed. In turn this reveals the nature of nature itself and of the creator of nature, as well as our own true nature. In this sense health is fundamentally a spiritual and revelatory condition, and medicine is a spiritual activity.

On the other hand there is sometimes a need for dissecting the world and reducing it to its parts. This also gives us a kind of knowledge and should not be scorned. However, this knowledge only builds up meaning, only contributes to true health, if it is part of the encompassing approach of wholeness described above. In this it is as well to remember the dictum of Asclepius, who lived in

Thessaly some 3000 years ago, and whose prescription to healers was “First the word, and then the herb, and lastly the knife”.

This saying is not a decision tree or a flow chart, but a philosophy of healing and wholeness. The word in this saying refers partly to the spoken word, the prudent advice and guidance which the healer can give on the basis of his broad experience, as well as to words which open the hearts and minds of the sick to the cause of their illness and which can provide understanding, meaning, consolation and balm. But the word can also refer to logos, the Word or cause of creation, spoken and speaking within the cosmos, bringing revelation and spiritual understanding, enabling a deeper perspective and acceptance of God’s word in the lives of those who are ill.

The herb can be understood to refer to nature, or creation, and as explained above, this creation desires to be known and in being known enlightens us and also heals us. This is not to scorn physical healing. Indeed, the way that plants (and indeed minerals and other natural materials) physically heal us is another way in which healing can change both our bodies and minds, giving us genuine physical relief as well as increasing our respect and understanding of nature

and creation in all its diversity. The doctrine of signatures is one manifestation of this kind of knowledge, but it is present in all healing where we can understand the connection of our selves and our condition to the things of the world. We come to see ourselves as surrounded by healing plants and minerals, to see the force of nature as combining both knowledge and power, and to live in an enhanced and compassionate world as a consequence of this healing.

Finally, however, we sometimes need the knife. In dissecting the human, we also dissect the world, reality, and reveal both the independence and validity of the particular as well as the possibility and presence of evil. The knife does not have to “murder to dissect”, but can be a valid and important part of healing. We have to remember that we are neither perfect, nor perfectible, in this world. Reductionist science, surgery, cutting out the evil, repairing the damaged, accepting a reduced body and ability, are all vital parts of a holistic and relational medicine, providing they remain within the overall context and bounds of this approach.

On the other hand, the current attitude to health does not only negatively affect the sick and infirm. It affects and infects all people and all modern cultures. It is itself a cause of great harm, physically, mentally and socially. Some of the consequences of this are the following:

■ **Over medicalisation** –this is the result of considering health to be the absence of disease and infirmity, rather than a state of reciprocity and relationship. It leads to us treating sick people with powerful chemicals or violent physical interventions when in fact they just require rest and care. It leads us to giving dangerous drugs to the healthy (in particular inoculations of babies and old people) and to ignoring the emotional and relational content of illness. It leads to physicians, scientists and businesses finding and promoting medicines for irrelevancies (and thereby encouraging hypochondria and paranoia). Ironically it is partly as a result of this that iatrogenic disease (illness caused by medication and doctors) is now a major cause of death and disability in the USA and around the whole world.

- **Anxiety** – the current definition of health is based on a fear of illness, fear of disability, and ultimately a fear of death and as such encourages people to worry about alien bacteria, viruses, accidents and so forth and thereby to shut themselves off from life.
- **Utopianism** (perhaps the dominant disease of our time) – we are trying to cure what cannot be cured and to overcome death, as though death were an enemy and anything less than perfection in human ability is an evil.
- **Attachment** – to what we consider safe and “wholesome”, and avoidance of the “unhealthy”, which in moderation is both a balanced and sane approach, but when infused with anxiety, utopianism and hostility to the world, becomes a dangerous source of addiction and paranoia, leading to the avoidance of life in its diversity and fullness
- **Misunderstanding of healing** – health is not primarily an absence of symptoms, and healing should not make that its priority. Healing is about finding meaning in disease and thereby opening oneself or the patient more fully to the world and to the self. It is vital to understand the root cause of dis-ease in a patient. Medicines should be used to re-establish balance (ease) which will be as much mental, emotional and spiritual as physical. This will lead to the reduction of symptoms, and in many cases the overcoming of dis-ease.
- **Misunderstanding of wholeness** – we need to re-establish a notion of wholeness which is relational, reciprocal, open, dynamic and non-utopian, in contrast to the complete, perfected, isolated and static notions which are currently dominant. Wholeness can then become a valid and meaningful aim of all people and of our society.
- **Misunderstanding of holiness** – holiness is not exclusion but is putting things in their right relationship, and embracing the whole in our individual particular lives. Everything, then, is sacred.
- **Loss of meaning** – meaning doesn’t mean happiness or success. Meaning only exists in everything or not at all.

The overall consequences of this incorrect view of health are increased unhappiness and dis-ease, as well as huge cost and waste of resources, including the waste of knowledge and good will. We are consequently seeing significant increases in mental and physical health problems at this present time, as well as damage to the environment and to social fabric. These are entirely related, as the way we think about our own health is a direct analogy with the way we think about the health of our world and society, and has a direct effect on policy, research and activity. The “wars” on cancer, terrorism and poverty are all part of the same way of thinking, a way of thinking that leads to more, not less misery.

We have absolutely come to the end of the road in this particular way of thinking about health, and we need to return to a more balanced and holistic pathway, one which was understood in earlier times and still is understood in some non-western cultures and alternative practices. This is not to say that there is no merit or value in modern medicine. Far from it. There are many incredible advances and understandings, as well as wise and compassionate practitioners and healers. However, there is also a lot of harm being done even by well-intentioned people. Modern medicine and attitudes to health need to be returned to and incorporated within the more balanced and holistic approach described in this essay. A new definition and understanding of health and what it means to be healthy must emerge, based upon a new or revived understanding of wholeness and our relationship to ourselves, our world and to destiny or God. This is the transformation we urgently need, not only for our own health, but for the health of society and the planet.

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## References

1. From *Brave New World* by Aldous Huxley; end of ch 17
2. From the *Online Etymology Dictionary*
3. Suffering also requires the possession of a body, a physical reality. For this reason God is said to be impassible, as are the angels, and in Christianity at least, God has to become Man in order to suffer. Suffering is therefore not only a unique human trait, but also to some extent, is a defining characteristic and privilege.
4. Ironically one consequence of this false conception of health is perhaps the current alarming rise in auto-immune diseases.
5. For example, see the Institute of Medicine: *To Err is Human* (2000), which estimates that there are between 230,000 and 284,000 deaths per year in the USA from iatrogenic causes, which makes it the third most common cause of death after heart disease and cancer. In addition there are many more people disabled, and with long term illnesses as a result of mistakes or illness contracted in hospitals, by mistakes by general practitioners and as a result of modern medical drugs.
6. The increase in anxiety contributes to and underpins the more general anxiety of modernity, which is fed by the loss of traditions and habits of living, the increasing “choice” we have to exert on a daily basis and the over-connectivity of mobile technology.



# Increasing Reef Resilience Through New Collaborative Models

*HRH The Prince of Wales*

*A speech on 14 February 2018 by HRH The Prince of Wales at the International Sustainability Unit's meeting: "International Year of the Reef 2018 – An Opportunity for Increasing Coral Reef Resilience through New Collaborative Models"*

The Ocean has an astonishing ability to heal itself if given the chance. So Ladies and Gentlemen, we simply have to give it that chance, perhaps its last, for we must not only conserve what remains of these unique and vitally important ecosystems, but we must also allow Nature to restore what has already been lost.

Ladies and Gentlemen, can I just say it is enormously heartening to see so many people here today, especially when I know how very busy you all are and the vast distances many of you have travelled to be at this meeting, and I apologise if during what I have to say, it may be teaching grandmothers to suck eggs – you know so much more about all these things than I do!

But nevertheless, this event is vitally important, for while the world – apart from one or two outposts here and there – has begun to focus, at last, on the profound perils of climate change, far too little attention has been given to the increasingly devastating impact of climate change on the Ocean and its biodiversity. Even when set against the dire backdrop of the destruction of the tropical rainforests and the burgeoning illegal wildlife trade, the plight of the world's coral reefs stand out in stark and desperate relief.



Now as you all know infinitely better than me, the reefs are by a long way the most diverse of marine ecosystems, whose biodiversity provides critical balance and equilibrium to our planet's biosphere and helps to maintain the resilience needed to withstand the natural changes of a dynamic planet and even, up until now at least, have provided a buffer against the damage of the emerging Anthropocene period. It is, for me, literally incredible – and deeply irresponsible – that people seem to have regarded the loss of these rich natural systems as somehow just being the 'price of progress', rather than the arbiter of our vulnerability and the harbinger of our future.

In addition to being on the frontline of the intensifying impacts of global warming, coral reefs are challenged by, among other things, unprecedented rates of development of coastal areas and heightened pressures from overfishing, from destructive fishing and land-based pollution. If that were not enough, Ladies and Gentlemen, we now understand that the scourge of plastic in the Ocean is causing the rapid increase of lethal coral diseases. The combination of these impacts has already caused the unimaginable loss of fifty per cent of the world's tropical coral reefs over the past three decades. More recently, we have seen the most widespread and severe bleaching event on record sweep across the world's coral reefs, leaving behind terrible scenes of destruction. And if, as seems likely and as reported in Science Magazine in January, the interval between bleaching events is now six years, whereas it had been 30 years in the 1980s; and, moreover, if the 'cool' La Niña events are now warmer than the 'warm' El Niño's were at that time, then the absolutely vital period of

regeneration which the cool cycle provided may now not be available. And that, Ladies and Gentlemen, is truly catastrophic.

So there can be no doubt that we are at a critical tipping point (and how many times have I said that in speech after speech in recent years?), where we will either ensure, or fatally compromise, our ability to safeguard the world's coral reefs and the species that will support future generations of humans and countless other forms of life.

There is, perhaps, some tiny glimmer of hope in all this darkness. Momentum, albeit belatedly, to protect coral reefs is provided by global accords, including the Paris Agreement on Climate Change, the Sustainable Development Goals and through more recent initiatives such as the Coral Reef Life Declaration that Prince Albert and I launched at the "Our Ocean" Conference in Malta last year. We must be utterly determined that this unprecedented global level of support and commitment to curb greenhouse gas emissions will limit warming to a level that is tolerable for coral reefs. And, importantly, as many of you here today can attest, there are, fortunately, local management measures that can increase the resilience of coral reefs' ecosystems by improving their prospects for recovery after bleaching events.

So, at this critical moment, I am encouraged to hear that the International Coral Reef Initiative has designated 2018 as the International Year of the Reef. This really must become the catalyst to tackle this issue at a scale that has never before been achieved and that brings together all sectors to work together as a global community.



Be it national and local government, non-governmental groups, local communities, scientists, international agencies, companies, the finance community or individuals, each has a key role to play. The role of the media, not least of all, is crucial here and I am hopeful that Sky will lend its voice and vision to this debate for it must, with a real sense of urgency, be brought into the homes, hearts and minds of people around the world. In this sense it is clear I think, that awareness-raising films seem to be the only way of galvanising the public into the kind of reaction we are now seeing with regard to plastics in the ocean.

Now it is, of course, absolutely critical that the scale of the collaboration equals the size of the challenge. It is a daunting task, but perhaps one made less so by a realisation of the economic benefits arising from success for, amid all the discussion of the sustainable Blue Economy that has emerged during recent years, there is perhaps no better example than that of tropical coral reefs.

The annual value of the services provided by these systems in an intact and healthy state has been estimated to be in the hundreds of billions of dollars while, inversely, on-going reef losses are leading to very significant long-term costs which, perversely, are habitually not included in the economic decisions that affect reefs.

Unfortunately, the decline of coral reefs is already affecting many communities and this is only set to get worse. Island states in the Pacific face a combination of higher tides, due to rising sea levels, and crumbling reefs are causing storm surges that damage properties and contaminate drinking water sources. The loss of coral reefs, especially when twinned with overfishing, and when healthy coral reefs can generate five to fifteen tonnes of fish per square kilometre each year, is translating into fewer fish, thus local protein shortages which, if expanded, would be utterly disastrous for the more than 500 million people in 100 countries that rely on wild fish for daily sustenance and livelihood.

So, the logical conclusion, you would think, is surely inescapable – that we must act, decisively and quickly, to prevent an ecological disaster that will lead to trillions of dollars of costs affecting hundreds of millions of people. You might very well come to this conclusion, and yet all attempts to monetise the long term value of healthy ecosystems and to create the urgently needed investment markets seem to be making agonisingly slow progress.

As is the case in relation to so many of the ecological challenges before us, the stakes are increasingly high and time very short. We must strenuously augment those initiatives that can provide platforms for future action; such as the Coral Triangle Initiative, a partnership of six countries in South East Asia working together to sustain the extraordinary marine diversity in that incredibly rich area of ocean; or, the Healthy Reefs for Healthy People Initiative that works with over 50 partner organisations to track and improve the health of the MesoAmerican Barrier Reef; or, indeed the example of the Government of Belize that has recently adopted a law to forbid further oil exploration in its Ocean waters.

An encouraging start has been made already this year with regions such as the Pacific where the Secretariat of the Pacific Regional Environment Programme declared 2018 the Pacific Year of the Reef by adopting a two-year campaign. Equally, many countries, some of which I am pleased to see are represented here today, are showing their support for the Year of the Reef; and this in addition to the emergence of new global initiatives and campaigns such as the 50 Reefs initiative being led by Bloomberg Philanthropies; the Nature Conservancy's work with the finance sector to insure coral reefs; and WWF's new initiative with U.N. Environment, adds up to a significant step forward.

Such initiatives, Ladies and Gentlemen, are desperately in need of encouragement and it occurs to me that a rallying cry for action on

coral reefs would also be critically important at moments like the forthcoming Commonwealth Heads of Government Meeting here in London, where 33 of the 52 Commonwealth States have coral reefs accounting for 44 per cent of the world's reefs; and during the G7 Summit where Canada has placed the Ocean firmly on the agenda, and rather conveniently the leaders of the G7 will meet on World Oceans Day this coming June.

It is a common phrase now that rather than borrowing our present from future generations, we are stealing it. Well, the speed of the ecological marine cataclysm that we have engendered is such that not only will our children be faced with the monochrome legacy of the graveyard of destroyed reefs and the collapse of marine biodiversity, but the majority of us alive today will stand witness to the process. How, Ladies and Gentlemen, is it possible that, as apparently intelligent beings, we can allow this to happen?

And yet – and yet – the Ocean has an astonishing ability to heal itself, if, if given the chance. So Ladies and Gentlemen, we simply have to give it that chance, perhaps its last, for we must not only conserve what remains of these unique and vitally important ecosystems, but we must also allow Nature to restore what has already been lost.

I can only pray, therefore, that this meeting helps galvanise a global movement during this Year of the Reef to catalyse long-lasting initiatives that will increase the resiliency of coral reefs in order that they may survive the threats they face – at our doing. So we need action – not just more words – more than ever before and I can assure you, I am keenly interested to learn, in the next hour, how you intend to play your role. You certainly have my word that I will do whatever I can, wherever I can, to help stem the tide of this catastrophe and to restore hope that the right actions must and indeed, will be taken. So Ladies and Gentlemen, thank you for all your efforts and your participation in this challenge that I hope we shall overcome.

*A collaborative conference to celebrate HRH The Prince of Wales's 70<sup>th</sup> birthday will be held at Canterbury Cathedral on Saturday 17<sup>th</sup> November – see leaflet enclosed or SMN website.*





# Palintonos Harmonia: The alchemy of opposites

*Oliver Robinson*

The idea that the tension generated by the juxtaposition of opposites is somehow central to human existence stretches right back to the roots of Western and Eastern thought. Heraclitus, one of the Pre-Socratic philosophers of Ancient Greece, referred to this idea using the lovely phrase *palintonos harmonia* (counter-stretched harmony). He pointed out that wherever one finds a tension of opposites one also finds a unity; hot and cold are opposed yet are part of *one* continuum. The same with night and day. More of one means less of the other, and yet they can only exist together as one. Heraclitus suggested that this kind of tension sustains the cosmos and is an expression of its paradoxical nature as both unity and multiplicity.

In Chinese philosophy, the play of opposites is central to yin yang theory. Yin and yang represent two power-principles that are different yet utterly interconnected. Yin is yielding, covert, dark and flowing. Yang is active, agentic, overt, light and hard. Together they create a two-part whole. Harmony and health is found in their relative balance. Illness and pathology in physical, mental or social forms occurs from too much of one or the other. Everything contains is opposite, and too much of anything can bring a loss of balance.

As well as the realm of ideas that Heraclitus and the Chinese philosophers explored, harmony in music and art is produced by the juxtaposition of two or more contrasting things that come together to forge a higher unity. Perhaps the clearest expression of this is in colour theory, where complementary colours are those that are *opposite* on the colour wheel, as shown in Figure 1. By juxtaposing complementary colours in a painting or design, such as red and green, one creates a visual balance and harmony.

In the Middle Ages, Nicolas of Cusa (1401-1464) continued the philosophical exploration of palintonos harmonia by suggesting that the nature of the divine is best understood as a *coincidentia oppositorum* – that which contains opposites and thus transcends them.

He wrote:

“When we attempted to see Him beyond being and not-being, we were unable to understand how He could be visible. For He is beyond everything plural, beyond every limit and all unlimitedness; He is completely everywhere and not at all anywhere; He is of every form and of no form, alike; He is completely ineffable; in all things He is all things, in nothing He is nothing, and in Him all things and nothing are Himself; He is wholly and indivisibly present in any given thing (no matter how small) and, at the same time, is present in no thing at all.” De Possest 74

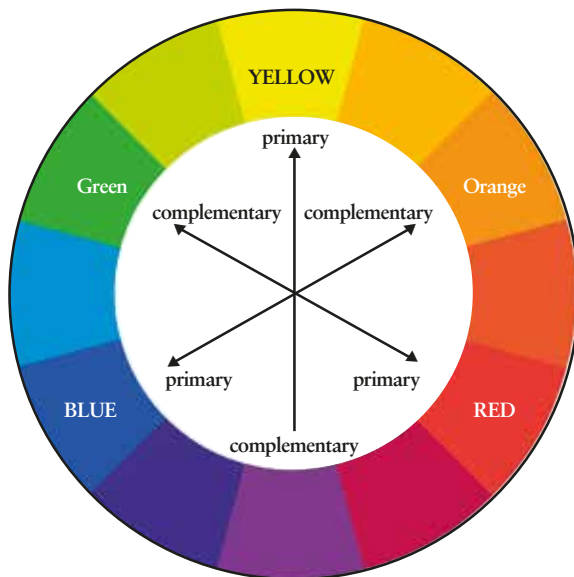


Figure 1:  
The colour wheel

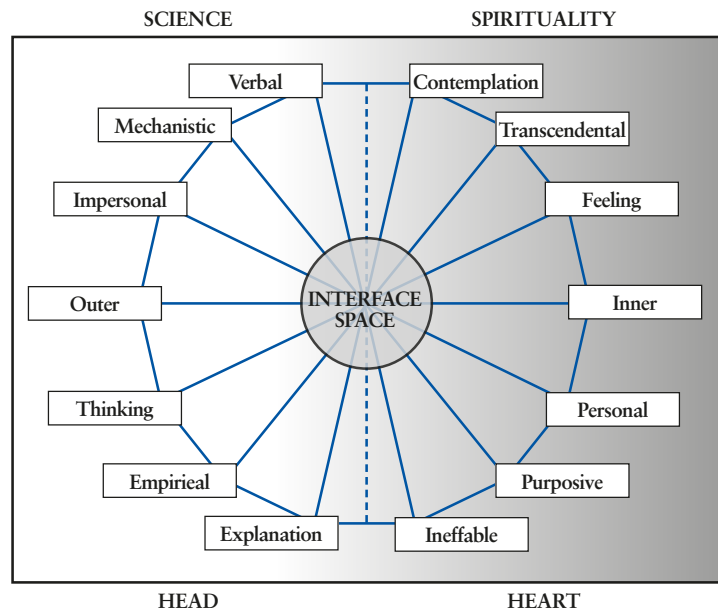
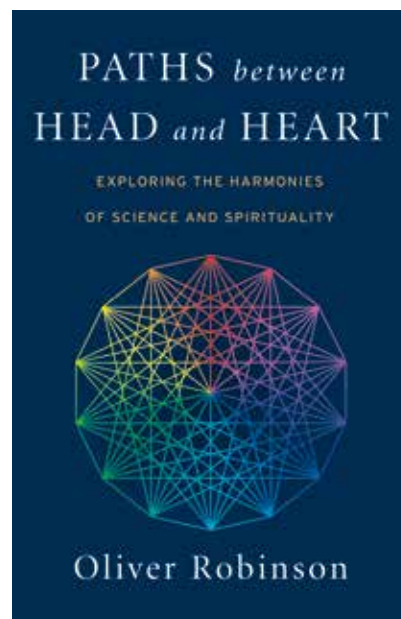


Figure 2:  
The visual integration of my dialectical model of the relationship between science and spirituality

Carl Jung was influenced by de Cusa's writings, and wrote about the tension of opposites as central to psychic balance and health and its healthy relationship to the divine or infinite. The Self is, he said, a complex of opposites, and consciousness does not exist without the discrimination of opposites. The juxtaposition and integration of opposites was for Jung a way of holding and resolving paradox and opening to the unknown while not getting lost in it.

Influenced by this influential train of thought through West and East, and by notions of harmony in art and music, I have developed a model of the relationship between science and spirituality that is premised on them being two halves of a whole, that nature of which can be expressed in seven pairs of opposites, each of which is a polarity, and thus a unity. In my new book *Paths Between Head and Heart: Exploring the harmonies of science and spirituality*, I explore these seven polarities and how particular key thinkers and contemplatives who have contrasted science and spirituality, or the rational and the mystical, have based their work



predominantly on one. I synthesise these different ideas together into a single *complexio oppositorum*, and the image that I use to represent this is shown in Figure 2.

It is no accident that the image bears some resemblance to a mandala, for mandalas have been used across the ages to represent

the tension of opposites and wholeness through holding this opposition. By arranging the seven polarities around a central point in this way, their overlapping nature is illustrated, as is the way in which they are all tapping an essential duality, which itself sits within an ultimate unity or non-dual space that transcends and yet somehow contains the cognitive process of contrasting opposites or perceiving dualities. The interface space shown in the middle of these continua is the space where the SMN naturally operates.

I hope that my book may be a small contribution to this long-standing tradition of palintonos harmonia, and strongly believe the topic has profound contemporary relevance. It seems we may have collectively forgotten that everything pushed to an extreme, no matter how ostensibly positive the thing may be in moderation, will in the end lead to pain. Let us all work towards the eternally important goals of harmony and the wisdom that emerges from balancing the contrasting opposites of the human mind.

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*Dr Oliver Robinson is a Senior Lecturer in Psychology at the University of Greenwich.*

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# Transmission within Meditation – the Phenomenology of Heartfulness

Rosalind Pearmain

*I was introduced to a different kind of meditation in 1976. It was rooted in Raj Yoga, yet Sufi elements from north India were imbued within its origins also. This new approach came into being as an organisation after 1945 and was originally termed Sahaj Marg meaning simple or natural way. The focus of attention is on the heart but, more significantly, meditators are given a connection with a very subtle current termed pranahuti, called transmission (sometimes described as divine energy for the transformation of humanity).*

If you were to try this practice, initially in a group with a trainer, or one to one, you would be invited to centre your awareness or attention in the area of your chest where you sense your heart to be; then to make the supposition that there is a divine presence, or source of light drawing your attention towards it. This does not require visualisation but just the thought or idea of this presence or source of light being there. At this point, you would simply rest your attention and wait to feel as an experiential process and presence. Any thoughts that arise are not suppressed but the foreground focus is this idea of divine presence. An additional practice in the evening invites practitioners to entertain the idea that all the complexities and impressions of the day are being dissolved and are going out through the back as vapour. In their place, the person can feel replenished with a sacred source. Introductory sessions with trainers help each practitioner to have a continuing access to this 'transmission' on their own. There is an encouragement to practice daily and each person would also have the opportunity to join in group sessions or one to one sessions with a trainer. These could be offered in person or even remotely. There are no charges.

How we can make sense of this phenomenon of transmission may lie within all the current speculations involved in consciousness studies which include the subtle implications

of quantum theories and beyond. On an experiential level, during my forty years of engagement with this practice I can vouch for the sense of being connected with, and being met by, a very enfolding, often deeply relaxing and pleasant emanation. This is likely to be experienced differently in each meditation, and by each person, but with common qualities. It starts as soon as the group or individual meditation starts. Over time, it can be felt in some way as a background feeling within the heart. One analogy could be to compare it with hearing silent music that attunes the subtle centres of perception in the heart to a deeper source of sound within. Basically, a common reaction among those who try it out is that it makes meditation easier than they expected and that afterwards they feel lighter, more calm and these effects percolate into daily life. For those who work with it as a practice, they discern a sense of being involved in a dynamic process of heart opening that steadily yields significant changes and profound intimations.

Transmission is a term that is used within spiritual philosophy and practice. Often it connotes the transfer of teaching between guide and practitant. Usually this takes place on a personal level. Within the Institute of Noetic Sciences, it has been one of their topics for research. In Heartfulness, the transmission is available worldwide with no charge at any time. The original teacher



within this approach was called Ram Chandra – Lalaji and from his inspiration and teaching about six separate paths subsequently emerged. One included the path introduced by Irina Tweedie and now led by Llewellyn Vaughan Lee. Often people will compare this transmission in Heartfulness with Reiki but it is different. All music is sound but that does not make it all the same thing.

Heartfulness came from the further profound explorations in consciousness of Babuji -also called Ram Chandra -who further refined and simplified the approach so that it could be available and accessible in a natural way to humanity at large. The two key elements involve the transmission of something like a spiritual nourishment and the simultaneous opportunity to dissolve and clear impressions and deep seated patterns also known as samskaras.

Two further living teachers have continued the evolution of understanding and practice throughout the world. Heartfulness is currently active in eighty countries. From the tens of thousands who enjoy this meditation, there are many testimonies for its value. In terms of more formal research, it presents a more challenging conundrum. As Network members will know, the field of meditation research is increasingly complex. Many measures of change can be established across different meditation practices. Some of these are common ones, some are distinct.

How do we know which elements of the practice are associated with which measured change? How do we match the subjective experience with the objective measure? As Schmidt and Wallach point out in their introductory chapter setting out the main issues for meditation research in their recent book on Meditation -Neuroscientific approaches and Philosophical Implications (2014):

*The idea that this might be misleading came to our mind for the first time when we measured two very experienced nuns from the Theravada tradition in our neurophysiological laboratory in Freiburg, Germany. The two nuns, as well as the two sessions were quite alike. We spoke about techniques, meditation practices and different approaches and for us this all looked very similar in background, culturalization and practice of meditation. But the resulting EEGs of these two women were quite different. (p.2)*

How does meditation transform values and behaviours? Can meditation be isolated from its context, teachings, and cultural settings? There do appear to be some discrete patterns of change within the brain for different kinds of meditation. Yet how these link with the practice may not be clear. We know also it is hard to make good research designs and to integrate the wide variety of research instruments into something incremental within the field.

Research studies that have been set up with Heartfulness are at a very early stage. One has shown that telomere length and burn out among hospital staff was significantly less than a control group for those who practised Heartfulness. (2017) A recent unpublished pilot study including psychological and behavioural measures as well as MRI scans with a meditation group of 16 and two control groups showed that, for the Heartfulness meditators, there were clear indications of linking between the heart, limbic system, amygdala and frontal cerebral cortex during the meditation which also correlated with reported descriptions of 'deeper levels of meditation'. There was also an increase in white matter between the amygdala and frontal cortex. Evidently, far larger studies over time need to be carried out.

The unusual aspect of Heartfulness meditation is that it does not put undue stress on either concentration or witnessing attention. It can rather be described as an effortless focus. Once a meditator has relaxed their attention towards the idea of a subtle divine presence or light in the heart that is attracting them towards it, it is a matter of feeling what happens and simply paying less attention to other background thoughts.

If any Network members would be interested in participating in an active research group with this practice or have ideas for furthering research into 'transmission', I would be delighted to be in touch.

*Dr Rosalind Pearmain has been practising and sharing Heartfulness as a trainer for more than thirty-five years. She has worked in education throughout her life on aspects of empowerment and transformation for women, teenagers, children, adults, in both formal and informal educational settings involving the community, health and public sector. She will be leading a session at this year's Beyond the Brain – [www.beyondthebrain.org](http://www.beyondthebrain.org)*

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# Frenchman's Cove 2018

## Me and We: Self, Gaia and the Cosmic Hologram

*Roderick Dunnett, Eve Hicks and Diana Clift*

*The jolts of long slow  
bumpy minibus night ride  
from Kingston Airport,  
Jamaica, to the delights of  
the verdant arboreal haven  
of Frenchman's Cove were  
a bodily preparation for  
the mental jolts which the  
dazzling Jude Currivan  
imparted to our minds  
during the six days of our  
intense cogitations.*



We students were lodged in a Jamaican wonderland, washed at its heart by a gently flowing river and at its edge by storm-driven waves pounding its sheltered beach. As in the setting, so in the mind: in our sessions of thought and discussion led by Jude Currivan, at times we floated gently on a flow of uplifting ideas and at times were bowled over by the waves of ideas emerging from the deep.

The Red Queen, who told Alice that she sometimes believed as many as six impossible things before breakfast, would have been at home in our confabulations. Indeed, we had the pleasure of a modern day Alice present and amongst us in our Greene space. However, we did not enter this Wonderland by partaking of a bottle bearing the instruction "drink me!" The most exotic drinks we consumed were the drinkable Jamaican beer, Red Stripe, and cocktails made of excellent Jamaican rum. And before breakfast, on a grassy cliff top overlooking the sea, we did not think anything difficult but worked through the energising movements of paneurythmy, under David Lorimer's direction.

During this remarkable week, we walked in a world which even Lewis Carroll would have found strange. We left with a sense of the present turmoil in physics and of the prospect of a new paradigm. Our thirst to understand more was whetted. In no particular order, and with apologies to Jude for points on which I have traduced her meaning or added extraneous matter,

the following paragraphs convey something of what we learnt.

### **The universe and us**

As much as the universe has created us, we have created and are creating the universe. We are its co-creators.

Mind and matter are all one. Minds embody consciousness not uniquely but only to a greater degree than apparently inanimate matter. The universe, Jude declared, is conscious.

We act and are acted upon not just through and by local forces but through and by remote connections. Each of us may be entangled with a remote galaxy as much as with our near neighbours.

Space and time are aspects of a single whole. What is true about space has to be true in some sense about time. It may be essential to think not just of a four-dimensional world but of higher dimensions. However, no experimental observation has yet unambiguously confirmed the existence of extra dimensions.

### **Information is the essence of it all**

The universe consists of information. Matter and energy are manifestations of information. They are mutually convertible and exist only in a fused abstract entity.

Information has material content and handling it consumes energy. Consequently, the universe needs ever greater resources to store and use that information.

Because the universe has a history and because so many minds gathering and storing information, the universe has to expand to accommodate it. If it did not, all that information, crammed into a too small universe and represented by so much matter, would create such a strong gravitational force that it would all collapse into a black hole.

At its origin, the universe was compact, uniform and simple. It could therefore be described with a compact data base. Entropy, meaning a measure of disorder of matter, or the number of bits of information needed to describe it, was low. Over time, the universe learnt to know itself and its data base expanded. This expansion compelled the universe to extend itself to make room for the new facts. This was a runaway process, driven by positive feedback, since the faster the universe expanded, the faster it needed to create space to hold its data. This explains why the universe, as observed by us, is expanding at an ever faster rate.

### Cosmic Hologram

Mankind used to think of the mind as a machine, and typically as the most advanced machine of the time. At one time that was the steam engine and more recently it has been the computer. We now find that the best expression of our present knowledge of the mind is the hologram. A hologram is a coded representation in a certain number of dimensions of an object existing in a higher number of dimensions. The first hologram, invented seventy years ago, was a two-dimensional sheet which embodied and represented all information concerning a three-dimensional shape.

But the representation is not in a point-to-point correspondence with the object, as is a photograph; on the contrary, each point on the hologram represents the whole of its object, and each point on the object is represented throughout the holographic sheet. While each part of the hologram may induce

a picture of the object, the whole hologram offers a better and sharper picture. The brain seems to treat its sense data this way; since it breaks down the memory of a single event or fact into multiple components and encodes those components in dispersed locations across the brain.

The hologram of the brain finds a parallel in the physical world. The holographic principle starts from the premise that space and time, like matter and energy, are not continuous or infinitely divisible. This premise of holography reflects the current state of human knowledge concerning black hole dynamics, string theory and quantum gravity. For space, there is a minimum unit of distance called the Planck length, measuring around  $10^{-33}$  centimetres and for time there is a minimum unit called the Planck time, namely around  $10^{-43}$  seconds. Energy and momentum also are subject to their own minima. The second premise is that the amount of information contained inside a black hole is proportional to the surface area of a spherical shell surrounding the black hole, called the event horizon. The shell marks the boundary at which an observer may safely observe the black hole without falling in and beyond which she is forever encased and trapped.

Now, as we learnt from Jude, information is represented by bits, and in the 1970's Jacob Bekenstein, applying no more speculative theory than Einstein's general relativity, found that the surface of an event horizon may contain at most  $10^{66}$  bits per square centimetre. All information concerning the black hole must pass through this surface. This puts a limit, admittedly very large, on the information that we may know about a black hole. It also puts a limit on the information that we may know about any volume of space, whatever that space contains.

The implications of this are manifold. Jude touched on some of them. It may be that, in some sense, processes, and not objects or energy, are the basic elements of the world. Processes may be thought

of as exchange of information between objects and observers or between objects among themselves. We may be entities through which processes are constantly flowing. A vivid image of this idea is that of the bow wave of water flowing over a rock resting on the channel floor. The bow wave is fixed in form but variable in its components. Each of us is like a bow wave.

### Gaia and Nature

Jude linked this mysterious representation of the universe with an exposition of Gaia theory. Under this theory, the world itself follows its own dynamics and its own feedback processes. The feedback processes protect the world from self-destruction and preserve its rich nature and diversity. These forces seem to show that the world, personified by the pre-classical Greek goddess Gaia, has a consciousness of its own, and a certain sense of destination. The process that drives the evolution of the world towards this destination is known technically as its *entelechy*.

We conducted under Jude's direction over four days a small-scale experiment to show that Nature, represented by mustard seeds, responds to the will of humans, represented by randomly formed teams of us participants. Jude, with the especial help of Tuvi Orbach, conducted the experiment under as rigorous a protocol as the place and resources allowed. The conclusion was satisfying to those of us who believe in the power of mind over matter, since the growth and vigour of the shoots of mustard on balance responded obediently to our common beamed willpower.

This observation sums up the amazing things that may happen in Wonderland. It goes further. It gives reason to hope that mankind may learn positively to influence the evolution of the world not only through the tools of technology but also by the willpower of well-intentioned minds. Jude told us that this will be the subject of one of her future books.





## Reflections on Frenchman's Cove Experience 2017

### *Eve Hicks*

What a fabulous 9 days! The Frenchman's Cove experience started the second the group, who had mostly travelled on the same flight, walked out of Kingston Airport. Immediately, the warm Jamaican sun started to melt the cold winter chill and life stresses left behind us in the UK 9 or so hours ago. I have personally found all SMN attendees to have an undercurrent of shared views of the nature of reality that do not need explanation. This group was no exception so it was not long before the warmth of the group's inherent openness added more joy into the mix. And anyone who has been to Jamaica will recognise the pervasive "no worries man" ambience. These factors all set the scene for a most pleasant and relaxed atmosphere wherever we were.

The conference followed on extremely well from last year's wonderful lectures given by Bernard Carr on the Cosmic Consciousness Connection. As in previous years, the broad plan was to have lectures

in the morning and to spend the afternoons engaging in the perhaps more traditional enjoyable holiday pursuits such as swimming, walking, water rafting, visiting sights etc. All optional.

Dr Jude Currivan was the speaker this year and her talks were tightly focused on experiencing the whole world view of the Cosmic Hologram and the unified co-creative nature of reality. The morning was divided into two halves: physics and theory in the first half and the experiential side of the subject in the second. A small number of the group had studied the underpinning Physics, but most of us were total novices on that front. It would perhaps be an exaggeration to say we all understood all of the theory all of the time, but I can certainly say I believe Jude managed to give us all a robust feel and intuitive awareness and appreciation of the underpinning science.

We were taken on a ride through Einstein's  $E=mc^2$ , energy and matter, dark matter, the Planck scale, black holes, boson stars, fractals, the octave of the 8 co-creative principles all leading to in-formationally driven entropic coherence from the

universal realm of intentionality. A bit of a roller-coaster! However, the intensity of the physics theory was well balanced by the experiential half of the morning. These sessions included a rich variety of treats including participation in an experiment on the power of intention to make cress seeds grow at different rates, different attunements, guided visualisations as well as other meditations and sharing of views and experiences.

Finally, it would be amiss of me not to include at least a brief reference to some of the fun evenings: suppers in local restaurants, reggae dancing with a local band at Woody's Burger Bar, and not forgetting the various times over the week where most of the group contributed something to share: the odd film that was rather pertinent to what we were looking at, poetry, Swedish songs, a fun reworking of Jamaican Farewell, a TS Eliot poem, a magic trick, Di Clift's 2018 Calypso, an apocryphal 3 day dialogue between Socrates and chums, and a most amusing story about our week and the participants called Gaia's Revenge! Words do not do true justice to the most amazing joyful impact of the Frenchman's Cove experience.

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## Jamaica 2018 Recollections

### *Diana Clift*

I am on the organising team of the Frenchman's Cove events and this was my 12th visit. Every one has a unique character shaped by the combination of the speaker, the individual participants and, of course, the venue with all its life, colour, weather, music, fun and frustrations! This year's topic followed on beautifully from last year when Bernard Carr spoke on 'The Cosmic Consciousness Connection'. At both events I felt the great excitement of being right up at the frontiers of Cosmology and also that if I were just that bit more intelligent I would understand it all! Both events presented powerful evidence, both theoretical and empirical, that consciousness is primary and intrinsic to our universe.

Jude's presentations were enthralling and she managed to balance some pretty hefty content with experiential and experimental sessions. Our cress germination experiment was actually good science, albeit very low tech.

Every morning in groups we focussed on speeding up the germination of one batch and slowing down the germination of another, relative to a control. By the end of the week the effect was actually visible to the naked eye. The 'inhibited' samples were noticeably less developed than the others.

As usual the informal parts of the conference were equally exciting. We had a remarkably distinguished group of people with - between them - experience in the physical and biological sciences, engineering, medicine, architecture, business, finance, the arts, poetry and broadcasting. Every contribution was valuable and relevant. And we also allowed Frenchman's Cove to work its magic. We danced to the Reggae band at Woody's, we rafted down the Rio Grande, we did Qi Gong and Panerhythmy in the mornings (thanks to Tuvi and David), we bathed in the river and the ocean we had some superb Caribbean food and also feasted on the sights, scents and sounds of this unique place.

Thanks to all the staff at Frenchman's Cove, especially the manager Angella Bolton-Trowers, and huge thanks to Grainger and Galvin Weston for their generosity and Jo Humphris for her hard work.

PS from *Jonathan Stedall*:

If I do ever end up in a Black Hole, or any other sort of hole, whether it be one of those identified by Jude Currivan or one even more bewildering, I couldn't wish to be with a more likeable and interesting group of people than the one I experienced in Jamaica.

*Next year's conference January 21-30 with Dr Olly Robinson on Pathways between Head and Heart. Email [di@dianaclift.com](mailto:di@dianaclift.com).*





# Mystics and Scientists 41

Eastern and Western Perspectives on Science and Spirit  
Latimer Estate, Chesham, 6-8 April 2018

*“Through dialogue we can harvest wisdom”*

*John Clarke*

*This conference of the SMN in conjunction with the Sri Chaitanya Institute of Chandigarh, India, was a splendid example of cultural dialogue in action - between scientific and spiritual worldviews, and between the traditions of East and West, speakers and discussant, and especially within the dozen well-contrived round table groups, and the warm ambience of the conference centre itself. The deployment of the penetrating intellect of Prof Max Velmans as a roving discussant ensured that the theme and views expressed by speakers were systematically probed.*

The mood of cultural interaction dominated from the start with **David Lorimer's** timely introduction to the now often neglected life and ideas of Sarvapalli Radhakrishnan (1888-1975), the great Indian scholar and statesman whose extraordinary life included the professorship of Eastern Religion and Ethics at Oxford and his election as second President of India. He was undoubtedly one of the great interlocutors between the worlds of East and West, and who at the same time sought reconciliation between the worlds of mind and spirit. David drew attention to Radhakrishnan's belief that, though we as human beings belong to many worlds, our underlying nature is one of spiritual fellowship. The conflicts that divide us can only be reconciled if we commit ourselves to a new form of civilisation based on a 'metanoia' of consciousness and the creation a new universal spirituality.

The theme of dialogue was also emphasised by **Dr Joan Walton** who in her introductory remarks outlined the plan for round-table discussion groups which she hoped would enable all participants to be engaged with the conference and to "harvest the wisdom of the room." The conference continued with two powerful presentations by our guests from India's Sri Chaitanya Institute, **Dr Bhakti Niskama Shanta** and **Dr Bhakti Vijnana Muni**, both professional scientists and committed to Hindu spiritual practice. The theme here, and indeed throughout the conference, was one of intellectual and spiritual dialogue, in effect a dialectical process in which opposites

are complementary, and the tension between them is progressively resolved in the creation of new levels of thought and being.

Dr Shanta's talk, *Missing Persons: Has Science Taken the Wrong Turn?*, which began with a prayer to his divine masters, gave emphasis to his belief that life, though based on chemistry, is clearly much more than this. He pointed to the fact that of its very nature science excludes meaning, mind and purpose, and hence science cannot give an adequate account of the human person. Nevertheless, the natural world displays evidence of mind, and we need to overcome the tendency towards reductionism which fails to bridge the gap between life and non-life. Organisms are complex self-modifying systems, and show self-directing propensity even at the level of bacteria. However, he argued, mind cannot be derived from matter, and indeed life rather than matter is fundamental, not derivative. This direction of thinking leads to key ideas in the philosophical and religious traditions of India including the Vedanta conception of matter as equivalent to mind, and to Krishna consciousness which transcends matter and points to our nature as eternal beings. These two sets of views from science and spiritual traditions respectively were, he insisted, well integrated into his own life and work.

In his talk *Towards a More Harmonious Concept through the Synthesis of Vedanta and Science*, Dr Muni also rejected the reductionist approach, but at the same time pointed towards the need to develop the principle of harmony between

the various different levels evident in the natural world. Science points in this direction, he argued, with the move in physics from individual entities to fields, and the emphasis on organic holism in the living world. But for Dr Muni there are clear limits to the competence of science, limits which indicate the need for spiritual traditions such as those of the Vedanta non-dual tradition, captured in Tagore's remark that "Truth lies in the harmony between subjective and objective realities." Observer and observed cannot be separated, a view that traditional Indian thinking shares with key twentieth century scientists in the West such as Heisenberg.

Max Velmans agreed that the question "What is it like to be a person?" cannot be answered in purely materialist terms, but wondered if the speakers had exaggerated the degree to which science adopted a purely materialist worldview, and he emphasised the now generally accepted view that the possession of intelligence is not confined to humans. He wondered whether speculating about the ultimate nature of reality transcends the limits of human understanding, or is perhaps just "asking for fairy tales".

Dialectical creativity was at the heart of the presentation by **Catherine Thom** which she entitled *From Music to Clay: A Spiritual Journey through the Meeting of East and West in Clay*. The *East and West* of her title was mirrored for her in Japan and Cornwall, and in her professional journey from guitarist to potter/ceramicist. The reverence which she came to feel for the clay she worked with was in turn mediated by her journey to Japan and by her encounter there with the work and descendants of Bernard Leach who had had a close association with Japan, but also with Japanese art and spirituality, its music, and especially with the traditional tea ceremony. This led her to a moment of insight – "the still point of the turning world" as she put it – in which she recognised both sides of her professional work as the spiritual links that bind different cultures together.

In his talk on *The Philosophy of Idealism in India and the West* **Prof Keith Ward** chose the obscure philosophy of Hegel as a useful vehicle for approaching the enigmatic thinking of the Advaita Vedanta school associated with the name of the eighth century philosopher Shankara. A bold move, wrapping an enigma in a mystery! What is key for this conjecture is that the philosophy of

Hegel, who incidentally had a good if basic grasp of Hindu philosophies, could be seen as an attempt to construct an idealist system of absolute knowledge which embraced traditional Christian theology as well as contemporary philosophical methods. He pointed to the various ways in which traditional Christian concepts relating to sin and redemption, the incarnation, the self-sacrifice of the divine redeemer, and above all the doctrine of the Trinity itself, could be dialectically transformed in terms of the philosophical dialectic which was at the heart of Hegel's post-Kantian philosophical system. In this way the pictorial and mythical images of religion could be recast in 'superior' and more spiritual terms which led ultimately, he believed, to the emergence of absolute, universal knowledge. In this way matter and spirit could be reunited in both cosmological and humanistic terms. This kind of cosmic Christianity, with its idea of world history as God's self-creation, and of human creativity as an image of divine creativity, might well be interpreted as the Western counterpart of the Advaita Vedanta non-dual unity of Atman and Brahman, but Professor Ward left this hovering as an intriguing possibility.

Saturday evening featured the screening of an award-winning film *The Bridge* directed by SMN member **Amit Ranjan Biswas**, a life-affirming and heart-warming story, set in Kolkata, of the chance encounter between two lost souls, and of the bridge – literal and figurative – which connected them and gave them new life.

The starting point for **Prof Ursula King's** talk, *Beyond Mysticism East and West: Towards a Global Spirituality*, was not philosophy but mysticism. And her goal was not absolute knowledge but a spiritual way through and beyond what she saw as the spiritual crisis of our time, especially in the West. In her wide-ranging multi-cultural analysis of mysticism, she drew attention to the dialogical tradition in mysticism studies and practices, beginning with the example of Rudolf Otto's classic work *Mysticism East and West* which compared the figures of Meister Eckhart and Shankara. She went on to outline the universalist tradition of the Philosophia Perennis, mentioning the contribution of Nakamura and Teilhard de Chardin who with others have sought a new universalist synthesis, necessary she argued for the future of humanity. This led on to the counterpoint between those like Bede Griffiths who with others spoke of

the 'marriage' between East and West, and William James who emphasised the worldwide 'varieties' of mystical experience, and what she described as 'relational pluralism'. The importance of Eastern mysticisms in the modern West, which sometimes took the form of 'orientalist' condescension towards the East, was underlined by the way it contributed to various forms of 'radical mysticism', including the rediscovery of a female mystical tradition, the post-Christian cultivation of the inner life, and the emphasis on the creative imagination in the arts and in our attitudes towards the natural world. For Prof King mysticism was clearly not an esoteric bygone but an important contribution towards a global spiritual awakening, and her talk closed with the maxim: 'Spiritual life is *your* life'.

The subsequent discussion, led by Prof Velmans with contributions harvested from the round-tables, pursued such questions as: How can we integrate the diversity of mystical traditions with our evident need today for toleration and mutual inter-cultural understanding? How can we, and indeed *should* we, overcome the evident differences between the various mystical traditions and the worldviews they embody? Can we understand mystical experience beyond the doctrinal or cultural contexts within which they arise? How can we overcome lingering antipathy towards mystical experience in the natural and human sciences?

The Network is to be commended for conferences like this in which participants are encouraged to engage intelligently and imaginatively with the contested borderlands between cultures and worldviews. At the present time the world appears to be re-encountering old social, cultural and ethnic conflicts. From school bullying and digital trolling to communal wars and resurgent nationalisms we seem to be descending into a new dark night of the human soul. As an organization the SMN is not involved in political campaigning, but it is of vital importance that we continue to demonstrate how it is possible to engage in the spirit of open dialogue with a broad range of painful issues of global importance at a deep spiritual and intellectual level.

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*John Clarke is Professor Emeritus in the History of Ideas, and author (as J.J. Clarke) of Oriental Enlightenment: the Encounter between Asian and Western Thought, The Tao of the West, and Jung and Eastern Thought.*

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# Network News

## JOHN ROWAN, 1926–2018

*Dr. Richard House writes:* We report with great sadness the passing of John Rowan, Honorary Life President of the Association for Humanistic Psychology in Britain, and often rightfully termed Britain's "Father" of Humanistic Psychology. John died peacefully on Saturday 26 May, at the magnificent age of 93.

John had a long and varied life. He was active in community politics in the counter-cultural 1960s, and in June 1969 John saw *Paradise Now*, a highly political and spiritually informed play drawing on the Kabbala and Tantra. John immediately started studying groups, attending all manner of different growth groups; and on discovering the Association for Humanistic Psychology (AHP), he was chair within two years.

John became involved in Harvey Jackins' co-counselling movement, and then became very enthusiastic about Primal Integration. His iconic book *Ordinary Ecstasy: Humanistic Psychology in Action* (1976; 3<sup>rd</sup> edn, 2001) was a milestone of his progress to that point.

In 1977 John initiated the New Paradigm Research Group, pushing forward his insights on research methodology, leading in turn to the path-breaking co-edited text (with Peter Reason) *Human Inquiry: A Sourcebook of New Paradigm Research* (1981).

His 1983 book *The Reality Game* focused on how to be a humanistic counsellor or psychotherapist (3<sup>rd</sup> edn, 2016) – a rich treasure-chest of myriad ideas and

sources. From 1982 onwards he was acquiring a new appreciation of spirituality, meditating daily from then onwards. He found Ken Wilber to be the best guide to 'the transpersonal', for which he became a central exponent in the UK. John duly became a frequent contributor to the annual conferences of the BPS Transpersonal Psychology Section, and to the journal *Transpersonal Psychology Review*.

John combined this interest with his continuing commitment to sexual politics, informed by his study of paganism, linking feminism with paganism – a core theme in his book *The Horned God: Feminism and Men as Wounding and Healing* (1987). He was very involved in the men's movement and its magazine *Achilles Heel*, and he teamed up with feminist psychotherapist Jocelyn Chaplin to form The Serpent Institute.

In 1995, for his 70<sup>th</sup> birthday John received a *Festschrift* organised by his wife-to-be, Sue, and in 1997 his classic book *Healing the Male Psyche: Therapy as Initiation* (1996) articulated his interests in feminism, spirituality and psychotherapy, using a unifying framework derived from alchemy. Then in the late 1990s, he wrote *The Plural Self: Multiplicity in Everyday Life* (with Mick Cooper).

In 2006 he was awarded his Ph.D. by Middlesex University for joining the idea of subpersonalities with the transpersonal. He discovered the idea of the Dialogical Self, with 'I-positions' representing a theoretical advance on the notion of subpersonalities; and his book *Personification* duly appeared in 2010.



He applied Ken Wilber's AQAL model in relation to psychotherapy, giving keynotes and leading workshops in many countries.

John contributed regularly to the AHP's journal *Self and Society*, which honoured him with a Festschrift edition in Winter 2014 edition (see photos).

John will be keenly remembered, not least, for his radicalism, for his keen passion for research, his love of poetry, and his commitment to non-patriarchal human growth and human potential. John was still writing, speaking and practising as a transpersonal psychologist and psychotherapist at the age of 92 in the year before

his death. Remarkably, he signed a new book contract not long before he died, and right up to his final years, John was still writing and giving workshops and international conference presentations.

John is survived by his wife Sue, by his four children, by his four grandchildren, and one great-grandchild.

A full biography can be found here – [goo.gl/rYKmgK](http://goo.gl/rYKmgK); and a shorter *Guardian* newspaper obituary here – [goo.gl/kNT5FL](http://goo.gl/kNT5FL). John was interviewed by Richard House on the subject of transpersonal psychology in 2012 (53 minutes) – viewable here on Youtube – [goo.gl/yoV9j4](http://goo.gl/yoV9j4).

### PROF MAX VELMANS – *Major Works on Consciousness*

Velmans, M. (ed.) (2018) *Consciousness (Critical Concepts in Psychology)*, Major Works Series (4 Volumes), Routledge, London, pp. 2030. See <https://www.routledge.com/Consciousness/Velmans/p/book/9781138848634>

**Max writes:** As this collection of *Major Works on Consciousness* forms part of a *Critical Concepts in Psychology* series, this selection of 89 readings drawn from the entire field of *Consciousness Studies* focuses mainly on writings that have a direct psychological relevance. From the mid 19<sup>th</sup> Century onwards, psychology began to separate itself from philosophy, and the development of psychological thought about consciousness links intimately to the development of psychology itself. In order to trace this development, the four volumes of this collection follow a rough, historical sequence. Volume 1 deals with *The Origins of Psychology and the Study of Consciousness*. Volumes 2 and 3 deal with contemporary *Cognitive and Neuropsychological Approaches to the Study of Consciousness*. And Volume 4 focuses mainly on *New Directions: Psychogenesis, Transformations of Consciousness and Non-reductive, Integrative Theories*, which deal with issues likely to expand current, mainstream thought in potentially novel, and, sometimes, challenging directions. Ultimately, such novel investigations of and

theories about consciousness lead us back us back to the same questions asked by the ancients about the relation of consciousness, mind and soul to the material world—issues that SMN members are likely to find of particular interest.

The printed, 4-Volume collection presents 89 major readings (or salient extracts from major readings) along with an introduction to the entire collection, the readings in each volume, and an extensive index. It also introduces 5 additional readings that were selected for inclusion, but could not be reprinted for the reason that reprint permissions were prohibitively expensive. There are also four freely available online *Companions* (one for each Volume). Although these *Companions* cannot substitute for the 2030-page printed collection, they do provide prepublication versions of the introductions along with a wealth of additional sources in the form of online links both to background readings and to the selected readings themselves, thereby providing a major resource for *Consciousness Studies* in themselves.

Please email me or David Lorimer for online links to these companions: [psa01mv@gold.ac.uk](mailto:psa01mv@gold.ac.uk) or [dl@scimednet.org](mailto:dl@scimednet.org)

### BHMA FREE GIVE AWAY

**Prof David Peters writes:** The British Holistic Medical Association produces the highly regarded *Journal of Holistic Healthcare* which aims to stimulate transformative innovation, engagement and collaboration. It presents new thinking and ideas for effective holistic practice. The journal is produced for people working in the field but also anyone who is concerned about real innovation in healthcare. Previous editions have covered a range of themes from Men's health, women's health, saving the NHS, Nutrition & lifestyle, and much more.

To celebrate their 35th Birthday, they have made their latest edition of the Journal FREE to everyone to download. *This includes items related to the joint BHMA/SMN conference.* Please make use of this wonderful free resource and spread the word!

<https://bhma.org/jhh/>

## LONDON GROUP REPORT



### LONDON GROUP

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London events, please drop me an email and I shall add your e-address to the circulation list.

### ■ APRIL



This month we welcomed from the US, **PROF JERRY KROTH** who entitled his talk *Chaos, violence, wars and barbarism, why Humanity and Peace will prevail*. Jerry is an Associate Professor in the graduate Counseling Psychology programme at Santa Clara University. He is an author of over 12 books and this evening

he explored the contents of his book *The Psychic Immune System: a Hidden Epiphenomenon of the Body's Own Defenses*. He started by quoting Jung who said 'to a quite terrifying degree, we are threatened by wars and revolutions, which are nothing other than psychic epidemics'. It is in this sense that he uses the word "psychic", as meaning of *the psyche* or mind, rather than in a paranormal sense. The core of the book addresses the possibility that a "psychic" immune system may exist that protects humanity from decimation, in a corresponding way in which the physical body relies on its immune system for protection.

To support his theory, Jerry went over some statistics, and showed us examples of major catastrophes in history, all of which came to an end. We saw the Bell curves of the events rising, peaking and then falling into nothing.

All events have an end. From Genghis Kahn to the Spanish flu, something happened that brought those terrible events to an end. What might that be? The most interesting (for me) parts of the talk were examples he gave of large part of humanity coming extraordinarily close to being obliterated through nuclear war, and the ensuing deadly nuclear winter.

He mentioned that there have been close to 20 such incidents and expanded on the details of three: in September 1983 the Soviet early warning system indicated that 5 US ICB missiles were heading towards the Soviet Union. The officer on duty found this strange, why only 5, and decided not to tell his

superior. Had he told his superior officer the whole Soviet machinery would have gone into operation with unforeseen consequences. The next incident addressed was the Cuban Missile Crisis, considered the most dangerous moment in human history. What we don't know about this incident is that whilst the US were dropping depth charges on a Soviet submarine, they were unaware that this submarine was equipped with nuclear tipped torpedoes. Three officers in the submarine discussed their orders which were that if under attack they should launch these nuclear devices. Two were in favour of following these orders, and one (Arkhipov) was against. His arguments won.

Had these nuclear missiles been launched, the US would retaliate with nuclear bombs, and WW3 would most likely have been upon us with terrifying consequences. The American military acknowledged that had they known that the submarine was armed with nuclear bombs, they would never have attacked it with depth charges. Arkhipov could be said to have saved the world from annihilation! One other example Jerry gave was the incident involving a computer simulation of WW3, the US called Able Archer, at the time of President Ronald Reagan. It was essentially a game, which the US tried to make as realistic as possible. The Soviets who were monitoring it did not believe it to be a game and prepared for a massive retaliatory strike. Ten warheads were aimed at particular US cities. The Soviet code for the launch of their nuclear missiles was issued. At the last minute the game finished and the missiles did not get fired.

These and other examples make Jerry ask, what is it that protects the human race. Is it luck? Rationality? God? He proposes that a collective self-preserving instinct in mankind, the workings of which remain a mystery, but something written in humanity, outside of our consciousness, works towards preservation of the species and ultimate peace. He quoted Gandhi who said 'when I despair I remember that through history the way of truth and love have always won. There have been tyrants and murderers and for a time they seem invincible but in the end, they always fail. Think of it .... always!'. The intriguing and hopeful message of his talk prompted an interesting discussion. This talk is on Youtube and can be seen at <https://www.youtube.com/watch?v=uA1Zz5cFngo>

### ■ MAY



The speaker this month was **Dr. LARRY CULLIFORD**, a retired physician and psychiatrist who has now turned his attention to the ailments of society. "Where is humanity heading, towards misery and destruction or a far more glorious future?" "How can people – as individuals – make a

difference?" He has written a book – *Seeking Wisdom – A Spiritual Manifesto*, in which he comments on various aspects of politics, leadership, religion, education, health and social care, capitalism, and art, and examines the human predicament in terms of both intellectual understanding, and deeply personal yet universal spiritual experiences.



He uses the ideas of Iain McGilchrist as a lens through which to identify left and right brain hemisphere predominance in our ways of thinking as they affect our worldly and spiritual values. He argues that the world's major problems are interrelated. The solution Larry says is for people to spend more time pursuing activities involving right hemisphere kinds of attention, especially being still and meditating. He argues we need to take responsibility and engage with suffering at the level of compassion and at a personal level to engage in activities which will lead to growth and maturity. And we can encourage others to become wisdom seekers.

## ■ JUNE



This month we had a fascinating evening listening to **PROF CHRIS BACHE** talking about his experiences of 73 high dose LSD sessions conducted between 1979 and 1999. *Diamonds from Heaven: a 20-year Journey into the Mind of the Universe* was the title of the presentation, and is also the title of the book he is finalising. Chris Bache is professor emeritus in the Dept of Philosophy and Religious Studies at Youngstown State University in Ohio, where he taught for 33 years. In the late 70s he was introduced to the work of Stanislav Grof with LSD and was convinced of the power of such research into non-ordinary states of consciousness. Grof had developed a 3 session high dose psychedelic therapy for dying patients as a way of preparing them for their death. On that basis Bache felt that if 3 sessions were safe, more would also be safe and he embarked on this journey of what he called, psychedelic exploration taking 73 such high doses.

However, because by that time the use of LSD had become illegal, he had to keep his research confidential, and therefore lived a double life not being able to share his experiences with friends and colleagues. He recorded each of the sessions phenomenologically, systematically and meticulously within the following 24 hours. He found himself exploring the core of the meaning and the structure of existence in dimensions of universal transcendence. He was engaging with a consciousness of universal proportion which was taking him personally through various levels and dimensions on a journey of collective historical unfoldment.

He experienced the spiral of death and rebirth into various personal identities countless times as well as the death and rebirth of our species. He learned to surrender to the process that repeats itself as he experienced ever deeper levels of consciousness. He experienced the depths of despair and suffering in the process of detoxification and purification as well as heights of ecstasy including a power of love impossible to describe. He felt always met and to be in dialogue with a vast consciousness who took him systematically where it wanted to take him, and even when he interrupted the process for 6 years, the following session resumed where the last one left off.

When he asked who/what this vast consciousness was, the answer pointed to himself. At first he found the experiences ineffable but in time he learned the skill to retain them in his memory in order to record and articulate them. He was taken beyond the collective psyche, beyond humanity to a level of platonic and archetypal forms but not the way we understand them. He found them to be vast energies structuring time/space, living and growing in galactic dimensions. Part of his experience was a domain of incredible light, which he called Diamond Light in which he felt himself dissolving. He had flashes of what he called God but it was not the theistic God although it had traits of it.

He was guided into the unfolding of the future, the Big Awakening for humanity, which he found movingly beautiful. But before that, the big breakdown, the Dark Night of the Soul of humanity which is indeed taking place in the 21<sup>st</sup> Century, giving birth to a new form of human being already implicit in our history – a diamond soul. This will be achieved by personally coming to terms with our lives in service of our collective existence. He received the insight that human beings are built for evolutionary speed – the core of the soul shifts to accelerate evolution. Reflecting on this experience, he confessed that for the following few years he was waiting to die in order to reconnect with the experience, but it then became clear that he needed to share this with others. So now that he is retired, he can speak about it, which is what he is doing. His book will be published in the course of 2019 but his lecture on this topic is available here <https://slideslive.com/38903724/diamonds-from-heaven-a-20-year-psychedelic-journey>.

## ■ JULY



**Dr. IAIN MCGILCHRIST** spoke to a packed room this month, about his *Recent Thoughts on the Hemispheres Hypothesis*, the title of his talk. Iain's scholarly and professional career took him first to the field of humanities and then to medicine. He is a former Fellow of All Souls

College, Oxford, a Fellow of the Royal College of Psychiatrists, a Fellow of the Royal Society of Arts, and former Consultant Psychiatrist and Clinical Director at the Bethlem Royal & Maudsley Hospital, London. He has been a Research Fellow in neuroimaging at Johns Hopkins Hospital, Baltimore, and a Fellow of the Institute of Advanced Studies in Stellenbosch. He is the author amongst others, of the seminal book *The Master and his Emissary* which has helped so many people to understand how the different kinds of attention and perception of the two brain hemispheres can,

through their predominance, influence the way we see, understand and interact with life. We were told about the many communications Iain had from the general public, expressing gratitude for being able to understand themselves and others better based on what they learn from his book. This evening Iain started by giving us an overview of his theory as expressed in the original book, and described the left hemisphere type of perception as informed by certainty, quantification, analysis, clarity, abstraction from context etc. The right hemisphere on the other hand, perceives the world as possibilities, qualities, change and fluidity, inherent in context, with emotion and awareness of body etc. The current paradigm has a left brain bias which has the effect of narrowing down our understanding and appreciation of reality. This is not to discount the benefits of left brain perspectives, which have been essential for the development of science and technology which have so improved the conditions of life. However what Iain stresses are the limitations of this bias. The left hemisphere can be likened to a computer it is excellent if it knows how to proceed but it has no handle on the meaning which requires the process. The mechanistic perspective is unhelpful to understand and appreciate living organisms. The book Iain is now writing, *There are No Things*, examines metaphysics and epistemology

of his two hemisphere theory. Due to the limitations of time, he could only cover a few of the subjects explored in the book. A hot topic at the moment is truth. What is truth? In the paradigm in which we live, with reason as tool, science is seen as the sole credible source for truth. This kind of left hemisphere approach looks for facts and certainty to support truth. It side lines intuition with the effect that a whole range of possibilities is ignored and overlooked. Imagination is also not valued yet it is fundamental, all ideas as well as all our experiences have their origin in imagination. The bias, when it exists on a personal basis, is intrinsically connected with the personality and tendencies of the communicator.

The left hemisphere approach jumps to conclusions whereas the right brain approach is more tolerant, embracing and inclusive. It is more nuanced and understands that truth may not be fixed, it can be fluid and relative. An interesting explanation of paradox describes it as a conflict in the perspectives of the two hemispheres. The new book will look at many other aspects which Iain did not have time to cover, such as why the brain has evolved the way it did, how the hemispheres look at time, space, values etc. We had a lively Q&A session which could have gone on until the early hours of the morning ...

## MEMBERS' ARTICLES AND ARTICLES OF INTEREST

Available through the editor or through links – [dl@scimednet.org](mailto:dl@scimednet.org)

### GALILEO COMMISSION

#### Prof Chris Bache:

- *Paul Kieniewicz on Dark Night, Early Dawn* – 2 pp

#### Dr Vasileios Basios:

- *Complexity, Complementarity, Consciousness* – 29 pp

#### Dr Daniel Benor:

- *Renovating the Boxes We Build and Live In, International Journal of Health and Caring, 17/3, September 2017* – 22 pp
- *Successful Muscle Testing and the White and Gray Crows, International Journal of Health and Caring, 14/3, September 2014* – 23 pp
- *Healing the Collective PTSD of Humanity, International Journal of Health and Caring, 15/2, May 2015* – 23 pp

#### Prof Etzel Cardena:

- *A Call for an Open, Informed Study of All Aspects of Consciousness, Human Neuroscience January 2014 and reprinted in Network Review* – 4 pp
- *The Experimental Evidence for Parapsychological Phenomena: A Review, American Psychologist, May 2018* – 16 pp
- *The Psychology of Anomalous Experiences, with Stan Krippner and Steven Jay Lynn, APA, 2017* – 20 pp

#### Prof David Ray Griffin:

- *The Golden and Silver Rules* – 18 pp

#### Prof Neil Grossman:

- *The Self Does Not Die* – book review, *Journal of Near-Death Studies* 34,4, Summer 2016 – 18 pp
- *Who's Afraid of Life After Death?* *Journal of Near-Death Studies*, 2002 – 20 pp
- *Four Errors Commonly Made by Professional Debunkers, Journal of Near-Death Studies, 2002* – 8 pp

#### Dr Shantena Sabbadini

- *Is the World Objective?* *Open Journal of Philosophy*, May 2014 – 9 pp

#### Prof Ravi Ravindra:

- *Yoga and the Future Science of Consciousness - Some Notes*, 3 pp
- *Yoga, Physics and Consciousness* – 16 pp

#### Peter Russell:

- *The Reality of Consciousness* – 9 pp

#### Prof Gary Schwartz et al

- *Integrating Consciousness into Mainstream Science* – 3 pp

#### Dr Joan Walton:

- *Action Research: A Methodology for Inquiring into Subjective Experience* – 9 pp

#### Dr Michael Wride:

- *The Human Being as the Most Exact Scientific Instrument: Reclaiming the Embodied Role of the Senses through Goethean Science* – 3 pp

## MEDICINE-HEALTH

**Dr Willam Bengston and Dr Margaret Moga**

- *Resonance, Placebo Effects, and Type II Errors: Some Implications from Healing Research for Experimental Methods* – JACM 13/3, 2007 – 12 pp

**Bob Charman:**

- *Possible Therapeutic Implications of Mice That Did Not Die Within 27 Days from Terminal Mammary Carcinoma: Should Psi Healing be Included Alongside Present Therapies as a Possible Treatment for Cancer?* 19 pp

**Dr Ernesto Burgio:**

- *Towards a Systemic Paradigm in Molecular, Evolutionary and Biomedicine Biology* – 2 pp

**John Kapp:**

- *The £80 bn pa Black Hole in the Health Budget* - 2 pp

## GENERAL

**Prof Tom Lombardo:**

- *Future Consciousness: The Path to Purposeful Evolution*, slides presented at the Annual Meeting – 20 pp

**Dr Olivia Bina:**

- *The Future Imagined: Exploring fiction as a means of reflecting on today's Grand Societal Challenges and tomorrow's options*, Futures 86, 2017 – 16 pp

**Peter Sjöstedt-H:**

- *The First Scientific Psychonaut - Sir Humphry Davy - Nitro-Metaphysics and Encounters Alien Ethereal* – 18 pp

**Prof Kenneth Ring:**

- *Waiting to Die XI Nothing to Be Frightened of* – 19 pp

## ONLINE ARTICLES FROM ANTHONY JUDGE

- *Having Bought into a Wreck -- What Now? Cognitive challenges of embodying reality otherwise*  
<https://www.laetusinpraesens.org/musings/upwreck.php>
- *Visualization Enabling Integrative Conference Comprehension*  
*Global articulation of future-oriented 3D technology*  
<https://www.laetusinpraesens.org/docs10s/futurfta.php>
- *Waiting as an Experience of Fundamental Significance*  
*Commentary on web resources on types of waiting all and anticipation*  
<https://www.laetusinpraesens.org/musings/waiting.php>
- *New World Order of Wheeling and Walk-away Dealing*  
*Creating strategic dependency and vulnerability through confidence tricks*  
<https://www.laetusinpraesens.org/docs10s/wheeling.php>
- *Capital Punishment of Canon Fodder*  
*Death penalty contradictions in the declaration of the Pope*  
<https://www.laetusinpraesens.org/docs10s/penalty.php>

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- remember we're a network, and it often takes time for all relevant people to be contacted so when making requests give us time to respond helpfully (and always remember to tell us who you are - we sometimes get forms back with no name at all!)
- help us save money; whenever possible pay in £ sterling and remember to gift aid when you make a payment (subscription, conference fees, etc..) - it maximises funds available for more important things.

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# book reviews

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## SCIENCE-PHILOSOPHY OF SCIENCE

### RECOVERING THE INTELLECT

David Lorimer

#### ■ IN THE SHADOW OF THE MACHINE

Jeremy Naydler

Temple Lodge, 2018,  
373 pp., £22.50, p/b –  
ISBN 9-781-912-230143

This is a brilliant and penetrating study of the prehistory of the computer in relation to the evolution of human consciousness, drawing on many primary sources and illustrated with diagrams and photos to support the overall argument. In the light of our deep reliance on digital technology, Jeremy asks about the philosophical and spiritual significance of this dependence in terms of our relationship to nature and indeed the shape of our very future. Taking this historical view enables readers to understand the gradual mechanisation of the mind and the emergence of what Rupert Sheldrake calls mechanomorphic thinking: we invent machines, then explain ourselves in terms of them.

The book begins with an exposition of participative consciousness in the ancient world, where humans not only did not feel themselves separate from nature, but also understood its significance from within. He discusses ancient Egypt and Mesopotamia before moving on to Greece where the centre of gravity begins to move from the poet to the philosopher, from imagination to logic, with the early example of Odysseus as clever, guileful and even instrumental in his approach. There is a distrust of the misuse of logic and rhetoric if it is not used in the service of spiritual insight.

This brings in a major theme of the book, namely the functions of *noesis* or *gnosis* compared with *dianoia* or

*ratio* as analytical reasoning.

The *nous* - later *intellectus*, or the intellect - is the higher or deeper intelligence and contemplative faculty enabling unitive spiritual insight, as also highlighted in my review of *The Scientist and the Saint* below. Even for Aristotle, the *nous* is oriented towards Being as an expression of 'something within them that is divine' (p. 40). This domain was one of spiritual light and was familiar to Plotinus as well as mediaeval mystics. Crucially, for Plotinus, Jeremy explains that 'the spiritual light is also the medium of contemplative thought, by which we come to know' - hence 'human knowing arises through participation in this formative, creative and intrinsically moral principle of light'. Gradually, this spiritual understanding of light was lost and reality came to be conceived of in outer, material and mechanical terms associated with the emergence of an objectifying and detached awareness prioritising rationality over feeling. In this respect, the abolition of monasteries with their contemplative orientation was hugely significant.

Jeremy goes into this process in considerable detail, including the gradual ascendancy of dialectic over grammar, of logic over language, along with the rise of nominalism - he characterises the thought patterns of formal logic as intrinsically mechanical and illustrated through the development of the camshaft. The mechanical clock enables time to be measured and represents a gradual shift away from qualitative to quantitative approaches culminating in the work of Descartes and Galileo where the quantitative assumes epistemological and ontological priority with the widely accepted distinction between primary and secondary qualities - the first measurable and objective while the second merely subjective, also corresponding to the ancient distinction between knowledge and opinion. Significantly, secondary qualities also include consciousness.



The 17th-century scientific revolution sees the establishment of scientific academies and a shift of epistemological authority away from the Church to empirical science.

The role of Francis Bacon is discussed at length in terms of the mechanisation of the process of thinking resulting in the automation of logic and an attitude of control and exploitation of nature. Jeremy sees the idea that the human mind can be disciplined to operate like a machine as the seed idea of the computer corresponding to a reimagining of the human being in the image of the machine. One of the most fascinating passages is his discussion of Bacon's invention of the binary code with different combinations of the letters a and b. Here there is no mention of his leading role in Elizabethan Rosicrucianism nor of the different kind of concealment represented by his possible involvement in the authorship of the Shakespeare plays. It is true, however, that his primary influence has been on the development of scientific thinking, and in this respect there is an interesting comparison with Newton, whose alchemical and theological writings were neglected until comparatively recently. Cultural influence is often shaped by social and historical factors and trends.

The invention of the vacuum as a break in the natural order was highly significant, and the relevant experiments are described – as is also the case with electricity later in the book. Although Pascal invented the first calculator in 1642, he did not equate calculation with reason and thinking, as did other later thinkers. Jeremy describes the work of Leibniz in the development of thinking machines and programming language in the light of what he calls the myth of Babbage. The publication of La Mettrie's *L'Homme Machine* in 1749 continued the development of the idea of the human being as a mechanism, then the Industrial Revolution showed how men could be enslaved by their machines. The book continues with an exploration of the loom and the punch card, and the role of Charles Babbage in developing his Analytical Engine where he asserted that 'the whole of the development and operations of analysis are now capable of being executed by machinery' (p. 218). Hence mental operations are conceived as merely operations of

matter – one can readily appreciate how this thinking has been extended by computers and artificial intelligence; all that was missing for Babbage was electrical circuits. Interestingly, Jeremy discusses electricity as the pseudo-life principle of mechanistic philosophy.

The process continues with the decomposition of language and the constriction of thought processes in an electrification of thinking mediated by the work of many 19th-century scientists; also by Frege's development of symbolic logic where language is stripped down and dehumanised and the emphasis is the underlying logical form rather than content as such. Programming languages derived from symbolic logic are 'cast adrift from living human language and bound into a binary code' (p. 258). There is no room for ambiguity or indeed subtlety. It is here as well as at other points in the argument that it would have been useful to draw on the cultural analysis of the role of the right and left brain hemispheres set out in Iain McGilchrist's *The Master and his Emissary*. The analysis in the two books has much in common, and I think Jeremy's narrative could have been enhanced by including this perspective – Iain would see the mechanisation of the mind as the triumph of left hemisphere thinking leading to an imbalance in our culture, a conclusion with which Jeremy would doubtless agree. A quote from Maxwell (p. 270) exemplifies left hemisphere expression when he writes that 'the aim of exact science is to reduce the problems of nature to the determination of quantities by operations with numbers' – this is fine as far as it goes but not if it claims to be a complete account of reality in terms of equations.

In his final chapter, Jeremy reflects on a possible metaphysical or qualitative perspective on electricity involving the deeper intelligence or intellect. It is interesting to reflect that the last 40 years of near death experiences and the work of people like Sir Alister Hardy following up on William James have exposed us to accounts of immediate encounters with spiritual light and love, which experiencers insist carries a greater sense of reality and normal sensory experience. This challenges us to accept this

insight as genuine contemplative knowledge, as spiritual traditions have always maintained. As Jeremy writes, this light reflects divine goodness and has a distinctive moral quality.

He sees a parallel between the sages of mediaeval Europe recognising the affinity between the inner nature of light and the contemplative thinking of the *intellectus*, and the discovery by modern rationalists of a similar affinity between electricity and a logical analysis of the *ratio*. This latter faculty enabled us to penetrate subnature, but it is now imperative that we recover and live from this deeper intelligence or intellect as primary: 'a deeper, wiser, contemplative intelligence must be present alongside logical thought processes and must act as their guide, for it alone recalls us to ourselves, and to our freedom' (p. 287). As Jeremy rightly remarks, a truly human future depends on this, and his book is a spiritual beacon reminding us that our essence transcends the material and the mechanical.

## CONSCIOUSNESS AND THE LIFE FORCE

David Lorimer

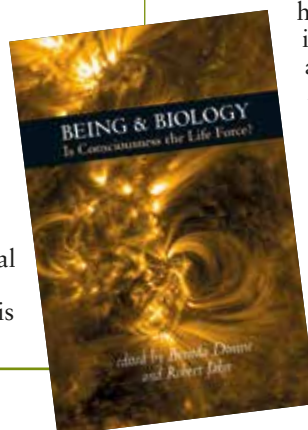
### ■ BEING AND BIOLOGY

Edited by Brenda Dunne and Robert Jahn

ICRL Press, 2017,  
282 pp., \$19.95, p/b –  
ISBN 978-1-936033-27-0

This book must have been one of the last editing jobs of the late Robert (Bob) Jahn, who died last year after a long and distinguished career in which he and Brenda Dunne set up the Princeton Engineering Anomalies Research Laboratory (PEAR) and undertook decades of significant laboratory work on PK and precognition with statistically significant results as initially described in their book *Margins of Reality*, which I reviewed in 1990 in Newsletter 43! Bob stood out for his courage and integrity in pursuing his work in the teeth of institutional opposition at Princeton, including from Nobel Laureate Philip Anderson, who I understood refused even to visit the lab and look at the results.

This volume brings together a number of distinguished contributors to



consider the relationship between consciousness and the life force. The influence of Henri Bergson's book *Creative Evolution* (1911) with his concept of *elan vital* is apparent in a number of essays and it resembles what we would now call self-organisation. The editors point out that Lamarck had similar thoughts 100 years previously, although he has been denigrated by conventional biologists until the recent advent of epigenetics. They report his claim that organisms tend to evolve towards complexity through behavioural adaptation, also foreshadowing Teilhard de Chardin. In his brilliant and wide-ranging essay, Vasileios Basios restates Bergson's thesis by pointing out that life = creativity.

The central dogma in biology forgot this simple point, making the gene and DNA into the elementary particles of biology and assuming a one-way process from DNA>RNA>Proteins>Function, which has been overtaken by complexity theory demonstrating non-linear information flows including epigenetics where lifestyle factors are capable of activating ('switching on') certain genes. However, the Kuhnian revolution in the light of complexity still has some way to go in the biological community still dominated by linear and mechanistic thinking. Vitalists were vanquished by mechanists in the 1920s, but it is interesting to read Niels Bohr's view in *Life and Light* (published in *Nature*) that they in fact represent a complementarity. The overall argument of this book speaks for the restoration of some of its insights within a framework of unbroken or undivided wholeness as advanced by David Bohm and Basil Hiley. Vasili adds some pertinent remarks on quantum logic in the light of complementarity and also brings in the work of Emilios Bouratinos on self-releasing objectifications as opposed to self-locking objectifications where scientists are trapped in their own formalisms and the contents of their consciousness – without realising that we need an inside-out science within consciousness, not just an outside-in consciousness within science.

The volume contains a wide range of theoretical and experimental contributions, some on the life force, bioenergy and orgone while others propose new approaches involving water, light and sound. Rupert Sheldrake provides an elegant and

lucid critique of a gene-centred approach in his essay on evolution and formative causation, linking this with top-down epigenetic causation in terms of higher level patterns. Ulisse di Corpo and Antonella Vannini explain their syntropic model of consciousness while Yolene Thomas gives an update on the work of Jacques Benveniste as it has developed into digital biology. Rollin McCraty from HeartMath usefully distinguishes three forms of intuition: implicit knowledge from the unconscious mind, energetic sensitivity to environmental signals such as electromagnetic and biofields, and finally nonlocal intuition as in telepathy and based on inherent interconnectedness; he also reports that the heart seems to receive pre-stimulus information in pre-sponse experiments about 1.3 seconds before the brain – an intriguing finding.

Another indication of interconnectedness is examined by William Bengston in his report on experiments involving healing cancerous mice. Some of his significant findings indicate that healing proceeds in a non-linear fashion and appears to be about information rather than energy. Healers and healees are not consciously aware of any connection and healing seems to be activated by need, and students involved in experiments resonantly connected with the mice and could apparently heal them; moreover, awareness seems to be more important than intention, suggesting the efficacy of a non-directed approach, as also noted by Larry Dossey in his work on prayer. Larry contributes an essay including distant mental interactions with living systems and teleomatic phenomena. He also looks at cell-to-cell, brain-to-brain and person-to-person connections, all of which points to a fundamental nonlocal interconnectedness acknowledged in physics but as yet not in biology or medicine; also to the undeniable irreducibility of consciousness as proposed not only by Planck and Schroedinger but also more recently by David Chalmers and Christof Koch.

Readers of this journal are likely to be already sympathetic to the slant and message of this book but will find a good deal of new and stimulating new thinking in this important contribution to

the debate about the relationship between life and consciousness. It is also interesting to see how neglected figures such as Lamarck and Bergson can reappear as influences at a new level of the conceptual developmental spiral having previously fallen out of favour.

## MEDICINE-HEALTH

### WHY SAFETY MATTERS

Gunnel Minett

#### ■ ETHICS OF CARING - FINDING THE RIGHT RELATIONSHIP WITH CLIENTS

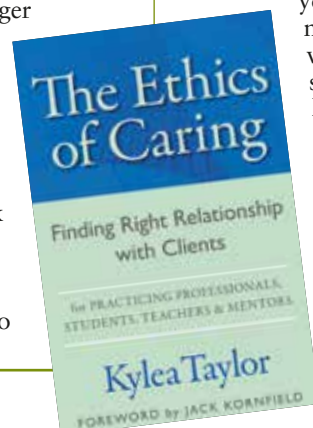
Kylea Taylor

3rd revised and expanded edition  
2017, first published 1995),  
Hanford Mead Publishers,  
355 pp., £19.99, p/b -  
ISBN 978-1-592750-412

There has been a tremendous change in our attitudes to safety over the years. In particular, when it comes to caring for children. Many of the things which those of us who adults now were allowed to get away with as children would be unthinkable today. Health and safety is paramount and most of us would not have it any other way. The same attitude to safety applies to many other professions and aspects of life. Builders wear hard hats and visibility vests, we can't drive most cars unless we have safety belts on etc.

But there are still some areas of life where safety is still a matter of debate. One such area (perhaps the most important and surprising) is psychotherapy. Psychotherapy, or healing therapies, is a relatively new profession that includes activities such as; counselling, body therapy, breathwork, with practitioners such as; therapists, clergy, hospice workers and mentors. This usually means working with people who are very vulnerable due to some form of crisis in their lives. That makes them, in a sense, as vulnerable as

young children. Still it is not equated to working with children as regards safety regulation. Practitioners of healing therapies are often self employed with their own small (one-person) practice. And it is not uncommon that they are self-taught in their profession. But all





forms of healing therapy can have a profound and long-lasting effect on people who search for help in times of distress. So the obvious question must be why this area is not as regulated as others when it comes to safety.

It is a well known fact that people can regress to a very vulnerable states of mind, where they in effect go back mentally and emotionally to being children. To deal with a person in such a regressed (and vulnerable) state of mind requires not just skills and knowledge but also life experience and wisdom that can take a lot of hard work to acquire. So in this sense one would assume that safety aspects would be as important as for other forms of 'child-care'. Still there is very little in the way of regulation of these professions.

In particular, the newer forms of healing therapies (often referred to as New Age Therapies) such as Reiki, Holotropic and Rebirthing Breathwork, and other forms of self-help groups are self-regulated. This is not to say that the self-regulation does not work. But it can be difficult to objectively judge the quality of a profession before it's been established long enough to have sufficient evidence of its results and best practice – especially since some of these therapy forms work with areas such as non-ordinary states of consciousness that are not well known or recognised by mainstream psychology. But to rely on self-regulation alone increases the risk of poor safety regulation and quality control in a way that would be unacceptable in other areas of professional qualifications and regulations.

An example of what can happen with a self-regulated therapy is Rebirthing Breathwork, where the focus is very much on helping clients through altered states of consciousness. Here safety should be very high on the agenda. But for various reason, proper quality control has always, and is still, lacking. One reason is that, in particular among older breathwork practitioners, there is still a firm belief (from the bygone 1970's era) that knowing the breathing technique itself is sufficient. In other words, many practitioners are not taking full responsibility for their role in working with a very powerful mind-altering technique. Many still see themselves as being guided by some form of higher guidance that somehow will prevent them from

doing anything wrong or harmful to their clients. This can often result in the attitude that everything, good or bad, that is initiated via their guidance of their clients, is 'created by the client's negative thoughts', rather than practitioner incompetence.

This belief in a 'higher order or power' guiding the therapy has meant that a need for a theoretical framework has not been seen as essential. Partly this can be blamed on a lack of acceptance of altered states of consciousness in mainstream psychology. This has forced many breathwork practitioners to turn to ancient eastern explanations and to rely on anecdotal evidence, and a guru-style teaching. But such a reliance on the 'elders' to teach and build up a theoretical framework for the technique has not resulted in a positive outcome; a potentially powerful alternative to conventional psychotherapy has been marginalised by mainstream society. And worse, it has meant a very uneven quality between practitioners. So Rebirthing Breathwork can act as an illustration of why safety, or a focus on 'non-harming' and ethics of caring (as this book does) are essential in areas that are by their nature difficult to teach. And, as Kylea Taylor's book emphasises, in particular in these forms of therapy, it is really important that the professional healer does not underestimate the power of their work and the effect it can have on people.

This is why this book is so important. It addresses a number of important issues, not just for breathwork but for healing practitioners of all kinds. Helping others to help themselves is something deeply rooted in all of us. But even if we all mean well there are many pitfalls and vulnerabilities that need to be recognised. Sometimes it is simply not enough to mean well. We also need to have some level of understanding and insight, of good and bad practice, to be able to help and find 'the right relationship' with others.

In the beginning of the book, in the chapter entitled Honouring the Web of Life, Kylea Taylor addresses the importance of this and describes the difficulties of being a therapist. "*We must be willing to deepen our personal awareness in order to learn more about our motivations. We must be willing to discover the point at which our unique qualities*

*are in the best balance to serve others. And we must also be willing to widen our understanding of the external contexts and connections that affect our professional relationships.*" (p 40).

This is the third edition of a book that was written in 1995. Over the years it has been included in many training programmes throughout the world and become an essential tool in training practitioners of all healing professions. But much has happened in this field over the years. So this version has been updated and adjusted to the current situation in this field. But the focus is still to describe the 'right relationship' between therapist and client. This includes ethical values as well as vulnerabilities.

Working with clients who bring up deep emotional trauma may be very upsetting both for client and therapist. And, as the author rightly points out, even therapists are human beings. This is one of the big challenges of being a therapist; to be able to steer a person through the client's inner rough sea of emotions and make sure the crossing is as safe as possible. And to make sure that both practitioner and client end up safely on the other shore. It requires not just knowledge of the human psyche but also self-awareness and willingness to 'learn on the job' and seek help from supervisors when that is needed.

A very important aspect of the right relationship is to be ethical in all aspects of the profession. This includes a number of aspects; from creating a practice that offers a safe space for the client, to money, booking appointments, sexual behaviour and other ethical guidelines. The author points out two aspects in particular; 1) *the ethical relationship itself is healing* and 2) *learning from ethical missteps*. It also involves an ethical attention to the client's need in extraordinary states of mind. This is particularly important since altered states of consciousness are still not fully recognised in some forms of psychotherapy and will probably be unknown to the client as well. By its very nature, it is an area that is difficult to investigate with any scientific stringency. So, it's difficult to offer explanations and reassurance to the client. For a practitioner, this requires forms of life experience or wisdom that can rarely be achieved by simply studying books. It also involves a

certain level of self-experience of these states of mind. If you haven't had a similar experience yourself, it can be very difficult to help someone who is experiencing mind- (and perhaps life-) altering states of consciousness.

With her many years of personal experience of Holotropic Breathwork, Kylea Taylor has the experience and wisdom it takes to write a thorough and important guide for practitioners in the healing professions. Her wisdom shines through on every page and makes the book a very valuable aid to introducing the safety regulation which is so much needed in these professions.

*The Ethics of Caring* has won a silver medal from the Nautilus Book Awards in the category of Relationships and Communication

For more information about Kylea Taylor go to <https://kyleataylor.com>

*Gunnel Minett is author of **Breath and Spirit**.*

## A RADICAL NEW APPROACH TO DEPRESSION

John Kapp

### ■ THE INFLAMED MIND

Prof Edward Bullmore

Short Books, 2018,  
240 pp., £14.99, p/b -  
ISBN 978-1-78072-350-1

The startling conclusion of this book is that depression is caused by a depressed immune system, not chemical imbalances in the brain. He says: (p. 19) 'We can move on from the old polarised view that depression is all in the mind, or all in the brain, to see it as rooted also in the body; to see depression instead as a response of the whole organism or human self to the challenges of survival in a hostile world.' It is therefore not a mental disorder, but the immune system's normal inflammatory response of fighting invasions of infection and other stressors by mobilising an army of cytokines in the blood.

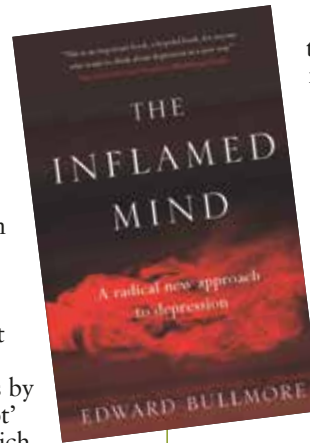
Prof Bullmore is well qualified to know, as he is a multi-disciplinary, world expert in the neuroscience of mental health, being both a psychiatrist and an immunologist who worked for drug company GSK. His discovery is an immensely important breakthrough, as depression is already of epidemic

proportions, affecting 1 in 10 in England, and is growing so fast that it is set to become the world's biggest health burden by 2030.

Having read his book in a day, (I couldn't put it down) his conclusion is common sense in hindsight, so why didn't somebody write this before? Ed explains this by the 'Cartesian blind spot' of dualism, (p. 177) which since Descartes has divided mind and body in 'medical apartheid', 'which blinds us to something (that's hiding in plain sight) and blinds us to our blindness. We can't see something, and we can't see that we can't see it.' He lays out irrefutable evidence in a laudably clear and readable way, such as (p. 11): 'when the dentist started probing my gums, she would have caused immune cells in my mouth to produce cytokines, which then circulated throughout my body in my blood and communicated inflammatory signals across the supposedly impermeable blood brain barrier to reach the nerve cells in my brain and cause my mind to become inflamed.'

However, stressors of the immune system are not just bacteria from physical wounds (antigens, or non-self p. 22), but include physical illnesses. He illustrates this (p. 3) on a co-morbid patient, Mrs P, to question whether she is depressed because she has arthritis, (the conventional answer) or whether she has arthritis because her immune system was compromised (depressed) by neglect or abuse in childhood. Other stressors are chemical pathogens, such as vaccinations, (p. 144) which can 'cause collateral damage to nerve cells, synapses, and serotonin metabolism'.

Depression can also be caused by what he calls (p. 150): 'flaming stress....major life events, like death of a spouse, or parent, or child, or loss of a job or other bereavement or humiliation. Your chances of becoming depressed under those circumstances are up to nine-fold greater than the background risk of depression.' So can social stress, such as caring for a loved one (p. 189) He describes the mechanism for so-called leaky gut syndrome to push up C-reactive protein (CRP) levels (p. 188): 'as a product of the



toxicity of the bacterial flora in the bowel- the microbiome – and the strength of the immune response. So someone with a deprived or abused childhood, whose macrophage army is already on yellow alert after exposure to such early and severe social stress might have a more inflamed and depressed reaction to hostile gut bacteria in the microbiome many years later'.

He is rightly critical that psychiatry is the only branch of medicine that does not use biomarkers, and recommends (p. 207) 'cytokine-guided psychotherapy' using a blood test (p. 198) 'of CRP at 3 mg per litre as the cut off point for being inflamed, then we might expect about a third of the patients with MDD (Major Depressive Disorder) to be eligible for treatment with a new anti-inflammatory drug. That's more than 100 million people.'

His take-home message (front dust cover) is 'He explains what we now know about how and why mental disorders have their roots in the immune system, and outlines a future revolution in which treatments could be specifically targeted to break the vicious cycle of stress, inflammation and depression. *The inflamed mind* goes far beyond the clinic and the lab, exploring a whole new way of looking at how mind, brain and body all work together in a sometimes misguided effort to help us survive in a hostile world. It offers insights into the story of Western medicine, and how we have got it wrong, as well as right in the past, and how we could start getting to grips with depression and other mental disorders much more effectively in the future.'

Amen to that objective, so I was glad that he briefly mentions non-drug ways of reducing inflammation: (p. 189) 'He could lose weight if he was obese, which would bring down his cytokine levels. He could try a new dentist, or changing his diet. A lot of sensible practices, like physical exercise, sleeping well, and avoiding excess alcohol, may have anti-inflammatory benefits. But in terms of lifestyle management this is motherhood and apple pie; very good, and very familiar advice that is often very hard to follow.' He also rightly points out that, for the

average GP :(p. 190) ‘there are no antidepressant treatments of any sort that are focussed on reducing inflammation. It couldn’t be different already. There has been plenty of progress in the scientific theory of how the immune and nervous systems interact, but this new knowledge is not yet enough to make a difference to the real-life experience of depression. The only thing that really drives change in medical practice is new treatments.’

He also says (p. 207) ‘a course of psychotherapy or meditation, focussed on helping patients to strengthen skills for stress management, could have anti-inflammatory effects. And indeed, there is some evidence for this. Mindfulness training reduced loneliness in older adults and also reduced expression of inflammatory genes by white blood cells. A recent combined analysis of the results of multiple studies of immunological effects of mind body therapies, like meditation or tai chi found that they significantly reduced the expression of genes that control activation of macrophages in response to infection. It seems *the mind can be trained to control the inflammation response of the body, and this might be one of the mechanisms by which psychological treatments are effective for depression.*’

I agree, and have emphasised that conclusion above as the punch line of the whole book. However, Ed, as a drug company employee, has naturally got a Cartesian blind spot himself, preventing him from seeing why the previously rare condition of melancholia 50 years ago has suddenly become a worldwide epidemic of depression. The only culprit, who Ed catches red-handed, can only be the ‘pill for every ill’, whose toxicity makes the taker depressed by depressing their immune system. The good news is that Ed’s book also makes the solution obvious. Governments should adopt a policy of ‘medication to meditation’, by mass-commissioning the most effective talking therapies, such as the NICE recommended Mindfulness Based Cognitive Therapy (MBCT) 8-week course, and other psycho-education courses which teach self-care, so that GPs can prescribe them to all those who want to cure their depression by withdrawing from taking drugs (prescription and street).

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## MIND-BODY WHOLENESS

David Lorimer

### ■ THE HEALING SELF

Deepak Chopra and Rudolph E. Tanzi

Rider, 2018, 290 pp., £12.99, p/b  
ISBN 978-1-64604-579-7

This is the third joint publication by the authors, and they make a great alliance with a physician teaming up with the professor of neurology at Harvard, this time looking at mind-body wholeness, health and healing and means of sustaining the immune system over the lifespan so as to maximise healthspan at a time when, in the US, the last 10 years of life are generally spent in a debilitating condition. The two parts look at the healing journey and outline a seven-day action plan for the maintenance of health. They see the most urgent crisis facing us as one of immunity, at a time when there are long trails eventually leading to chronic illness, sometimes over a period of decades. This is where lifestyle medicine can make a critical contribution, especially as the strength of the allopathic approach lies in emergency intervention. As indicated in the title of my review, mind and body cannot be separated in health terms, and indeed mind is spread throughout the body.

The authors take issue with the gambling model of illness, where it is supposed that it is largely a matter of luck. Certainly, genetics play a role, but epigenetic and lifestyle factors seem to account for 70% of illness and disease. This includes core beliefs and values. The authors draw both on scientific studies and case histories to illustrate their argument. An important overall theme is the development of awareness, which is also correlated ultimately with spiritual enlightenment. We can work on becoming more conscious and mindful in our everyday activities, and the authors provide a great deal of good advice in this respect. They show how love and the sense of being loved can play a significant role in mental and physical health, relating this generally to the health of the heart. They argue that stress can lead to inflammation and in turn to atherosclerosis and coronary heart disease while citing many factors and variables in the mix.

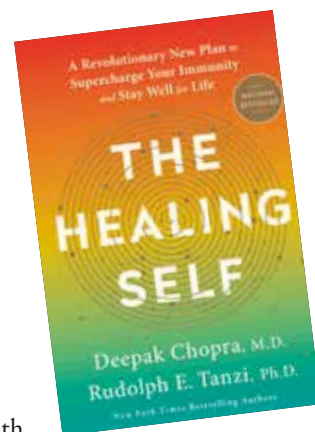
Many of us find ourselves in a chronic stress overdrive whereby our normal lifestyle can block healing:

the focus of life is on externals and work, with emotional needs downgraded and we are subject to a constant barrage of demands.

This in turn correlates with an unconscious attitude to life and a passive stance towards one’s own health. The authors show how we can assume more control of our health and transform our beliefs by changing our interpretation of life and therefore our outcomes. We can adopt positive and healing beliefs, on which the authors offer sound practical advice that can support the wisdom of the body and the aspirations of our higher self in terms of a more conscious life. (p. 147) Nor need we turn pain into suffering – as an animal parallel, they cite a fascinating study showing how good mothering in rats can override poor inheritance by changing a significant number of chemical pathways. In our case, we can change imprints by choosing our beliefs, behaviours and interpretations.

The second part is highly practical with seven sections on the anti-inflammation diet, stress reduction, anti-ageing, exercise and rest, core beliefs, non-struggle and evolution. Here the authors provide a great deal of practical guidance, and in each chapter they recommend a series of do’s and undo’s, suggesting that we only pick one per week. The news on coffee is better than on alcohol, which they recommend avoiding, at least late at night. They recognise the importance of a healthy gut microbiome, also making recommendations in this respect. Advice on stress reduction includes the practice of meditation and centring, while that on anti-ageing includes advice from a number of other sections as well as the belief side; also guidance on maintaining the length of one’s telomeres.

In common with other experts, they emphasise the importance of movement, exercise, rest and sleep. Under non-struggle they specify surrender, acceptance and flow as well as an overall trusting





philosophy of life. They develop this further in the final chapter on evolution by contrasting the implicit health consequences of a spiritual or atheistic sets of beliefs. They remind us of key themes that we can reinforce every day as well as of the core qualities of consciousness and how to look after our emotional body. They end by affirming the spiritual 'pull of the Self' as the ultimate direction and purpose of life. This is a wise and comprehensive book about health at all levels and will help any reader enhance the quality of their lives if they take the authors' advice on board.

## JUST PART OF BIOLOGY

Gunnel Minett

### ■ MY PARTNER IS DEPRESSED, WHAT CAN I DO?

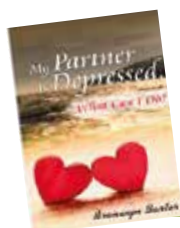
Bronwyn Barter

Strategic Book Publishing, 2017,  
168 pp., £11.73, p/b -  
ISBN 978-1681815206

When someone breaks a leg, we do not hesitate to take the person to see a doctor and get help, or the leg will not mend properly. But when the same person gets depressed the solution is not as clear. Somehow the psychological problem is not seen as straight forward as the physical problem. Instead there is often stigma attached to psychological ailments. They are often seen as self-inflicted and/or as a weakness that we should be hiding away from others. Sadly, such negative attitudes often make the problem worse and is really far from reality. Depression needs proper attention just as much as a broken leg.

We need food and water to grow a healthy body and we need attention from others to grow a healthy self. To see to it that we get these needs met, we are equipped from birth via the genetic blue-print to expect a certain level of care from our environment. When we get our needs met we react with positive emotions. If not we react the opposite way. When the negative emotions get out of balance they may turn into more permanent sadness or depression. It is as

simple as that. So you can say that depression is just another way of safeguarding our existence on this earth in the best possible way.



This is what this book is all about; to explain why we get depressed, what we can do to help ourselves and in particular how we can help others do come out of their depression. The tone of the book is reassuringly down to earth, showing that there is no need to panic. It simply describes what causes depression and what helps the recovery from it. The language is plain and straight forward, in a way that makes it accessible to someone experiencing depression and consequently in itself also offers help. It shows how we can help ourselves and others to come out of depression and return to a happy, healthy lifestyle even if we fall into a dark hole of depression at some point in our lives.

The author lists a number of reasons why a person may get depressed, childhood problems, poor relationships, and other negative aspects of life that we are most likely to experience at some point of our lives. She also points to the fact that not all depression is the same. Grief for instance may feel like a period of intense depression. But this is nature's way of handling the effects of a separation and will most likely disappear by itself once the time is right.

Sadly, this is something we seem to forget with our modern expectations of having everything perfect. It is getting more and more common to get anti-depressants when we are grieving rather than the emotional support we really need. Another and even more disturbing fact is the increased tendency to prescribe anti-depressants to children. But as the author rightly points out - antidepressants are not a cure! All it does is to remove the symptoms, which in turn makes it more difficult to help the person to recovery.

Understanding depression is probably the best way to help someone back to a better life. This is why a book like this is so important. In my view it should be handed out to parents and doctor's surgeries and any other places where we need to improve our understanding of what depression is and what we can do to help people struggling with depression. Or why not include it in the first aid kit that we all keep somewhere, just in case life that a turn for the worst.

## PHILOSOPHY- SPIRITUALITY

### SCIENCE AND THE SACRED

David Lorimer

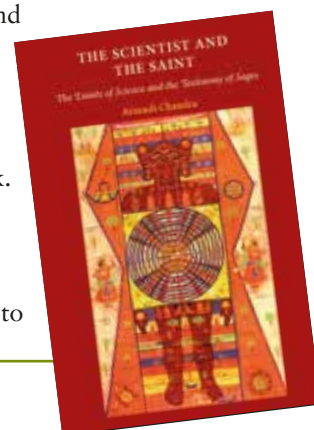
### ■ THE SCIENTIST AND THE SAINT

Avinash Chandra

Archetype Books, 2018,  
666 pp., no price given, h/b  
ISBN 978-1-901383-54-6

This magisterial work can be unreservedly recommended to serious students of the relationship between science, spirituality and mysticism. Immense in scope and drawing on a wide range of literature, including French, Spanish and Italian as well as English, the book is a brilliant and cogent statement of perennial philosophy in relation to the materialistic metaphysics of modern science. The eleven parts address major themes in terms of worldviews, the ideology of science, evolution, the nature of consciousness - also in Indian thought - spiritual knowledge or gnosis, the testimony of the sages, esoteric and exoteric religion, death, evil, and finding the way out of the labyrinth. There are nearly 70 pages of notes and references, along with 25 pages indexing proper names - also an extended table of contents.

The author has a thorough grasp of the perennial philosophy, mysticism and the mystical path, metaphysics, evolutionary biology, consciousness studies, parapsychology, spiritual traditions, ethics, epistemology and levels of knowing, and the literature around death and near death experiences - in other words, of many of the central concerns of the Network and its members. His critical analysis of the limits of scientism is acute, and goes to the heart of the existential vacuum of our time in terms of meaning. He points out the fundamental division between those who espouse the materialistic view of random chance and accidents and those who see a deeper intelligence at work - these include people like Max Planck. He shows how the loss of the contemplative dimension in Christianity led to



a more propositional approach to faith and belief and ultimately to the eclipse of the intellect or higher mind by discursive reasoning. Kant went as far as denying that such unitive knowledge was possible. The knowing of the intellect is immediate and direct, through the eye of the heart, where there is no separation between knower and known. Nor is there a distinction between knowledge and love - the ultimate human experience unites being, consciousness and bliss as in *sat, chit, ananda*, as pointed out by many perennial philosophers such as Guenon, Schuon and Nasr.

This insight means that ethics are integral to the unitive state of identity with the Source, where modern thinking has divorced knowledge from love and produced an amoral and manipulative technology that also serves as a noisy distraction from the silence required for serious spiritual work. In this sense, the focus of the book is on the inner, the sacred and the qualitative, providing an essential corrective to the outer, quantitative emphasis in the contemporary world. The stress is on transformation rather than information, the surrender of the ego and the journey from self to Self as described in the testimony of the sages. The author reminds us that modern people tend to look up to the economically successful as role models, while in more traditional societies the Sage or Saint has been at the centre as a source of spiritual inspiration. Their witness attests to the primacy of consciousness and the reality of inner knowing and subtle worlds. It is mere metaphysical prejudice to dismiss saints and sages as deluded dreamers. However, in order to gain access to subtler perceptions, training is required, as it is in all disciplines. The section on spiritual knowledge explains this in detail with its insistence on an ultimate identity between being and knowledge whereby the logos 'is at once the intelligibility of God and the agent of man's intellection, mediator of knowledge' - this is traditionally understood as Light, but a Light that is also Love, as experienced by mystics and some of those near death. The revival of the term intellect as the medium for immediate contemplative knowledge is in my view a vital part of any metaphysical revolution.

The section on subjectivity, mind and consciousness clarifies why consciousness is such a problem for materialistic science that insists on

primacy of matter and the more or less epiphenomenal nature of consciousness: 'consciousness is only a problem when it is not considered as a primary reality' (p. 193) and explanatory attempts are made only from the bottom up or from the outside in. Maintaining the materialistic metaphysic entails ignoring the causal powers of consciousness as demonstrated in parapsychology. Raimon Panikkar is quoted as saying that the world is neither subjective nor objective, but rather the point at which objectivity and subjectivity meet. It is here that the Indian view of mind and consciousness is very helpful, as also expounded in the work of K. Ramakrishna Rao. Indian thought does not confuse consciousness with its contents, and distinguishes pure witness consciousness from the mind. Atman is this pure consciousness, which is also the source and goal of self-realisation in unitive knowledge. The Atman is ineffable, transcending concepts and duality. However, as already indicated, in order to achieve this devoted sadhana or practice is required. This can be summed up in the quotation 'know that by which you know yourself' or in the phrase of Clement of Alexandria 'if a man knows himself, he shall know God.'

The sage or saint is one whose sole being is in God, whose identity is surrendered as an instrument to the eternal spirit - Swami Ramdas provides a comprehensive description (p. 335). They all insist that our phenomenal reality represents only one level, and that there are other more real levels to be perceived beyond the limitations of the physical senses and personality. Sage exemplify both love and wisdom, having overcome any sense of separation. They also emanate peace and joy - people are transformed in their presence. As St Catherine of Genoa writes: 'my being is God, not by simple participation, but by a true transformation of my being...my Me is God, nor do I recognise any other Me except God Himself.' (p. 375)

The chapter on religion and religions quotes William James as saying that the life of religion consists in a belief that there is an unseen order, and that our supreme good lies in harmoniously adjusting ourselves thereto. He might have said experience rather than belief. The language of religion is symbolism, and we live in a symbolically

illiterate culture characterised by fundamentalism and literalism in both the sciences and religion. The author points out that there are traditionally four levels of reading Scripture - literal, moral, spiritual and finally anagogical. The distinction between the esoteric and the exoteric can be characterised as that between the spirit and the letter, essence and form. Bede Griffiths was one modern mystic who realised the importance of Dionysius in incorporating the esoteric wisdom of Platonism into Christianity and the need to revive the Christian contemplative tradition, also manifest in the work of John Main and Laurence Freeman. I could add here the work of the Bulgarian Mystic Peter Deunov (Beinsa Douno, 1864-1944) who, although not mentioned, represents a further testimony from a sage; also the work of Walter Russell (1871-1963).

Moving towards the end of the book, the author considers the importance of understanding the nature of death in relation to the meaning of life and spiritual practice. Here he also discusses transmigration and reincarnation, as well as the metaphysical significance of evil and suffering. In the final chapter, he returns to the question of the significance of worldviews and limitations of the current materialistic metaphysic. He is clear that science should not be discarded but rather valued within its limits and domain of jurisdiction, and that science as a method of knowing should be distinguished from scientism as an ideology; this will be a familiar thought to many readers. Hence the conflict is not between religion and science as such, but between dogmatic materialism and an equally dogmatic literalistic and fundamentalist religion. The author calls for a resacralisation of the world and transformative practice informed by what Bede Griffiths calls 'fides formata' - a transforming faith opening to the divine and working by love. This brings him back to the essence of spiritual life and the supreme goal returning to the Centre, Origin or Source and embodying the integration of love and wisdom. This profound and erudite book is not only highly informative and topical, but also challenges the reader to remember and live out the essential spiritual purpose of life.

## THE DIALECTICS OF SCIENCE AND SPIRITUALITY

David Lorimer

### ■ PATHS BETWEEN HEAD AND HEART

Oliver Robinson (SMN)

O Books, 2018, 274 pp., £15.99,  
p/b – ISBN 978-1-78279-900-9

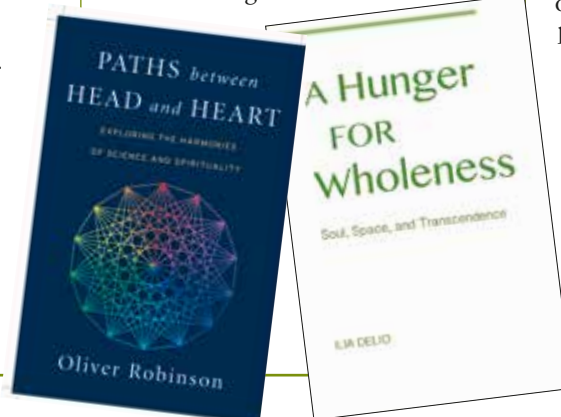
The relationship between science and spirituality is a key issue for our time as well as a central concern of the Network. In this brilliant, wide-ranging and engaging book, Olly gives a fresh take on this interface, proposing an informative new model of complementarity adapted to our age of interconnectedness. He begins by setting the scene, comparing spirituality and religion, where the latter emphasises exploration, transformation, enlightenment and growth. Spirituality is fundamentally mystical in seeking to go beyond the ego to the ground of being, leading us to realise 'our true identity as ocean, not cup' - an apt metaphor for the journey from self to Self.

Seven chapters explore the relationship between complementary pairs of opposites: outer/inner, impersonal/personal, thinking/feeling, empirical/transcendental, mechanism/purpose, verbal/ineffable and explanation/contemplation. Olly sets this within the context of dialectical thinking. He then compares parallel revolutions in science and spirituality, beginning with the scientific and nonconformist revolution of the 17th century (he himself is sympathetic to the Quakers), then the chemical and romantic revolutions, the relativity-quantum and mysticism revolutions (here he points out the mystical tendencies of many great 20th-century physicists), coming finally to the age of interaction with post-modernism, the dark revolution and the spirituality revolution. I myself might have chosen systems, chaos and complexity theory rather than the dark revolution, as I think these fields have had a greater and more radical impact on our way of thinking.

The discussion in subsequent chapters is well-informed and balanced, and it is useful to hold the tension between the complementary opposites without trying to reduce one to the other or minimise the importance of each.

If one takes the left-hand column or first item in the list above, these broadly characterise science, while the right-hand column reflects spirituality and mysticism, as also articulated by Iain McGilchrist, whose work is incorporated into the argument. This is not to say that there is no middle ground as the distinctions between categories may be blurred in the middle, such as Olly's discussion of purpose in biology. Another illustration he might have mentioned is the experimenter effect in parapsychology, which questions the status and reality of objectivity in the scientific method. In the chapter on the empirical and transcendental, Olly discusses transpersonal psychology, shamanism, near death experiences and the nature of consciousness - here I would have extended the treatment of empiricism to include 'inner empiricism' as much of the theorising in these areas is evidence-based.

The history of the relationship between mechanism and purpose is an interesting one, as Olly notes. A key figure is Francis Bacon, whose work on the scientific method and mysticism seems to run in parallel without being reconciled, and Bacon's influence has principally been in the scientific field; the same applies to Newton, who devoted a great deal of time to esoteric pursuits. In this respect, the mysticism of modern physicists is more widely accepted, even though many mainstream scientists are very cautious or even hostile. Goethe is another figure quoted, but here his work appears more integrated as he uses contemplation and analysis both in his poetry and essays as well as his scientific work. The chapter on explanation and contemplation explores different ways of knowing as well as practices. Throughout the book, Olly provides a series of exercises and practices for the reader, including on kindness, self-criticism, letting go, relating to trees, silence and writing haikus.



The final chapter presents his overall model, which he calls Multiple Overlapping Dialectics or MODI for short. He presents this in a mandala diagram (p. 218) with an interface space in the centre - science and the head are on the left, and spirituality and the heart on the right, with lines linking the complementary aspects. I found this model very useful, reflecting as it does the Chinese Taijitu of yin and yang. In his view - and I agree - the overall picture points beyond physicalism whereby 'spirituality is a mode of enquiry that captures those mental, intentional and interior aspects of primary reality that science does not.' (p. 227) In the epilogue, he suggests that the emphasis of science is on knowing interconnectedness, while practising spirituality enables us not only to feel interconnectedness, but more importantly 'to live it as an ethos and ethic' with a sense of being embedded in a greater whole. The book is a significant and accessible contribution towards harmonising science and spirituality, head and heart and as such points towards wholeness and integration as a further necessary step in our evolution. I hope it will be widely read.

## ENHANCEMENT OR TRANSFORMATION?

David Lorimer

### ■ A HUNGER FOR WHOLENESS

Ilia Delio

Paulist Press, 2018,  
124 pp., £10.99, p/b  
ISBN 978-0-8093-5374-9

Ilia Delio is a Franciscan Sister who also holds the chair in theology and specialises in science and religion; I have reviewed a number of her previous books, and she is one of the leading exponents of the scientific and theological work of Teilhard de Chardin. Subtitled 'soul, space and transcendence', this book elaborates on the two forms of energy proposed by Teilhard - tangential as the energy of attraction (this is in fact the French word for gravity), and radial as the energy of transcendence. These are applied to both inner and outer worlds, and the author rightly insists on the primacy of the inner and shaping the outer. Hence she maintains that nature has two principal dimensions: 'the empirical, visible realm and the



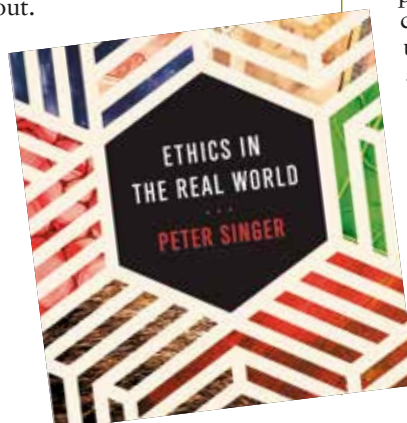
invisible, conscious realm.' (p. 29) Teilhard maintained that radial energy defies the second law of thermodynamics and increases with complexity - hence 'it is the inner energy of evolving consciousness that gives evolution its qualitative direction' towards unification and what he calls centration. In its inner aspect, tangential energy is love and in the interplay between these two forms of energy 'as we become aware of another and attracted to the other, knowing and loving become symbiotic energies of an interwoven reality.' (p. 31)

The 17<sup>th</sup> Century scientific revolution led to a loss or at least a degrading of inner space and a compression of the soul into the head. Quantum mechanics has reinstated the central role of consciousness, but we are still in the process of working the implications of this revolution. Drawing on Plato, Plotinus and mediaeval mysticism, the author redefines the features of the soul as a field of mind and a centre of freedom and self-determination, while also adding aspects such as the ground consciousness and the depth and breadth of all existent life which I myself would classify as defining the spirit. She usefully draws parallels between the outer and inner universes (p. 42) arguing that our attention needs to shift to the inner universe. This is exactly our challenge as we become increasingly immersed as cyborgs in our technological devices that tend to draw our attention outwards, although virtual reality technologies can have the opposite effect and may provide new modalities of inner space. There is some ambiguity early in the book where AI is posited as the next phase of human transcendence, and a chapter is devoted to digital humans and to the blurring between the natural and technological. However, for the author technology cannot fulfil the aims of religion because such fulfilment lies in God: 'we can enhance our lives with technology, but we are transformed by love.' (p. 68) In fact, this statement may be too dichotomous in that many younger people are now working on technologies to transform consciousness, although I do agree that transformation involves spiritual discipline and the development of our capacity to love.

The mystical path entails the awakening and expanding of self in God and going beyond the separate ego to a realisation of the

universality of the one consciousness, spiritually represented as light. This feeds into a chapter on planetisation, where the author observes that 'instead of increasing consciousness through the unity of love, we are information overloaded brain not bring fatigued, thinned out interiorly, and mentally fried.' (p. 85) Readers will recognise this description and the corresponding hunger for wholeness and meaning that involves a shift in the centre of identity by means of inner work leading towards increased centredness or centration. However, concentration and meditation are the opposite of technological distraction and fragmentation, so we need to go against this tide. The author also suggests that to be a person is to be consciously relational and oriented towards community - I am in fact writing this review in the Tamera Community in Portugal. For Delio, relational consciousness opposes power, control and domination in favour of belonging, mutual affirmation, participation and creative love.

We have reached a critical point in human evolution where we are challenged to unify rather than destroy ourselves. Teilhard refers to a convergence in the hyper- personal rather than a depersonalised process and the technological 'transcendence' of ultrahumanism. As Albert Schweitzer put it, our task is to become more finely and deeply human, which means an inward journey of effort and concentration so as to build the necessary inner universe to be reflected in the outer. In this respect, religion and spirituality can be seen as technologies of the spirit giving us access to the inner universe 'as an undivided whole where mind, heart, and the core of love energy abound.' (p. 106) In this way, we can align ourselves with the unitive, relational and transcendent energies and play our part as evolutionary co-creators in building a new world from the inside out.



## MAKING BETTER INFORMED CHOICES

David Lorimer

### ■ ETHICS IN THE REAL WORLD

Peter Singer

Princeton, 2016, 355 pp., £22, h/b  
ISBN 978-0-691-17247-7

Only read this clearly articulated and thought-provoking book if you are prepared to rethink your views and be put ethically on the spot – *caveat lector!* Peter Singer has been writing on bioethics for over 40 years, with affiliations to Melbourne and Princeton and I was not surprised to read of a family conversation in the car when one of his daughters asked him if he would rather they were clever or happy, implying that one could not be both simultaneously – he does not in fact record his response... This book consists of 82 essays and syndicated columns on 'things that matter', with the overall headings of big questions, animals, beyond the ethic of the sanctity of life, bioethics and public health, sex and gender, doing good, happiness, politics, global governance, science and technology, and finally living, playing, working. In other words, a comprehensive range of key ethical issues and areas.

Singer begins by observing that we all make ethical choices, often unconsciously and that ethics is more than just observing rules; it includes the good we can do to those less fortunate than ourselves, including future generations and animals. In a relatively short review it is only possible to highlight a few areas and issues, beginning with animals. He makes a reasoned case for veganism and discusses the Japanese assertion that whaling is a cultural issue – not for Singer since whaling involves inflicting suffering on sentient beings and in the case of whales they cannot be humanely killed as harpoons entail a slow and painful death. He argues that not causing needless suffering is a universal and not culturally a specific values. Americans celebrating Thanksgiving by eating one of 46 million factory-farmed turkeys should read his eye-opening piece on this topic. Broad Breasted Whites are incapable of mating so the males have to be masturbated upside down by hand then the females are forcibly inseminated – truly repellent food for thought.

The essays covering bioethics and health are especially stimulating, treating such issues as abortion in developing countries, interventions in the final year of life (representing 27% of total health care costs in the US), euthanasia and kidneys for sale. In terms of resource use, consider the choice between expensive treatments administered to terminal patients compared with helping families below the poverty line. Cigarettes are an example of how to balance public health with private freedom – the death toll in the 20<sup>th</sup> century was 100 million and is expected to rise to 1 billion in the 21<sup>st</sup> century, raising the question of whether we are the best judges of our own interests. Rising obesity increases fuel use on planes, so it has been calculated that an average 2 kg rise in average weight since 2000 costs an extra \$472 in fuel between Sydney and London – should heavier passengers therefore pay more?

A discussion of virtual vices addresses the connection between video games and violence in terms of who is harmed, noting that there has not been any serious debate within the industry over the last 10 years about the ethics of producing violent games; since the risk is so great, Singer argues that we cannot wait for proof. He conducts a nuanced exploration of the issue of private acts in relation to public office. The essays on Doing Good directly address readers: are we justified in not contributing 1% of our income to good causes while indulging in luxuries? The opportunity cost of a case of good wine or an exclusive watch or phone might involve saving the life of a child. If we donate, should we do so to a new wing of an art museum or towards a campaign to prevent trachoma? Here we can rationally weigh costs and benefits. If we have sufficient wealth to buy expensive art as a form of conspicuous consumption, are we also contributing proportionately to charitable causes? An inspiring example in this respect was Sir John Templeton with his large charitable foundation always staying in a modest room at the Royal Overseas League in London.

Under politics and global governance, Singer addresses themes such as open diplomacy, citizenship and security, the integrity of George W Bush, the ethics of a statue for Stalin, the use and abuse of religious freedom, and the refugee crisis. Here he recommends that

affluent countries should be giving more support to less affluent ones supporting large numbers of refugees like Lebanon, Jordan, Ethiopia and Pakistan where the cost is also lower. He urges us to hold big food companies to account by becoming better informed about the food we consume and being influenced by ethics as well as price. At Rio 2012 he finds out that meat is on the menu despite the well documented evidence of methane from cattle as a major source of greenhouse gas accumulation. Reducing meat consumption would limit GHG emissions, yet the number of farm animals raised annually is expected to double to 120 billion by 2050.

This book of clear analysis and challenging thinking encourages readers towards radical shifts of thinking and action, not merely the kind of thinking that Bertrand Russell called rearranging your prejudices.

## PSYCHOLOGY- CONSCIOUSNESS STUDIES

### TOWARDS AN ETHIC OF LOVE AND REVERENCE FOR LIFE

Larry Culliford

#### ■ SURVIVAL? DEATH AS A TRANSITION

David Lorimer (SMN)

White Crow Books 2017, 322 pp.,  
13.99£, p/b. 6.99£, e-book  
ISBN 978-1-78677-035-6

#### ■ RESONANT MIND: LIFE REVIEW IN THE NEAR-DEATH EXPERIENCE

David Lorimer (SMN)

White Crow Books 2017, 269 pp.,  
12.99£, p/b. 6.99£, e-book  
ISBN 978-1-78677-033-2

Members of the Network will know David Lorimer as an indefatigable Programme Director, masterly Journal Editor and prolific Book Reviewer, very likely coming to appreciate him (as I have been pleased to do over more than twenty years) as friendly, supportive, humble, erudite, well-connected, gentlemanly and generous. If anyone succeeds at the skilful balancing act between intellect, emotion, words and action, between mind, heart and soul, it is David. So the task of reviewing these two books filled me with both a welcome sense of privilege and confident anticipation.

They are in fact re-publications with new or expanded titles. *'Survival?'* was originally written in 1982. *'Resonant Mind'* was published as *'Whole in One: the near-death experience and the ethic of inter-connectedness'* in 1990. The one prepares for the other and, despite some necessary repetition, it was good to read them sequentially, for they build steadily towards what, in the 80s and 90s, would have been a near-revolutionary climax.

In writing about the possibility of personal consciousness surviving death, and related matters, David set himself a monumental task, one he approaches in *'Survival?'* in two ways: the first (in the six chapters of Part One) historical; the second (in the six further chapters of Part Two) empirical. He then artfully combines these approaches in the nine chapters of *'Resonant Mind'*. His account is comprehensive. At one point he warns, for example, *'Research for this chapter has involved consulting some seventy-five books'*; and he sometimes recommends those wanting more detail to look up some of his sources. There are fourteen pages of bibliography in *'Survival?'* and twenty in *'Resonant Mind'* but (as Introductions to the new editions mention) extensive footnotes from the original publications and the index have been removed, so some difficulties do exist when following particular ideas or seeking precise references.

This will not matter significantly, except to the most discerning readers, because the material presented is sufficiently detailed and wide-ranging, and therefore entirely adequate. But it is not a completely neutral account. David employs the first person plural throughout. The conspiratorial use of 'we' and





'us' naturally implies a contrary and disbelieving 'them'. 'We', his agreeable readers, it seems, are people who follow the declared aims of the Network, among them: *'to integrate intuitive insights with rational analysis'*. 'We' are therefore people *'open to new observations and insights'; 'rigorous in evaluating evidence and ideas'; also, 'sensitive to a plurality of viewpoints'*.

This is perfectly fine, but the risk of furthering division between 'Us' and 'Them' - those in opposition who continue to hold the prevailing world-view; the supporters of scientific materialism (whose doctrine concludes that mind is solely a by-product of matter and the soul a bygone illusion) - should be acknowledged and guarded against.

One way to improve the situation involves seeking out one's supposed opponents to understand them better, to discover how they have come to formulate and adhere so strongly to their opinions, to divine wherever they may have left their investigations incomplete, and where contrary observations, evidence and arguments are being overlooked, ignored or flatly denied; and this is what David is good at. His historical survey starts with the 'animist outlook' of pre-history, proceeding via ancient Tibetan, Egyptian, Greek and Roman cultures to Christianity, via the Old Testament, the Gospel writers and Saint Paul, towards the Middle Ages and the Reformation - all in three chapters and fewer than eighty pages.

A straightforward chapter on, *'Mind and Matter in the Scientific and Cartesian Framework'*, is then followed by, *'Modern Theories of Body, Mind, Brain and Death'*, encompassing the work of Karl Marx, Charles Darwin, T. H. Huxley, J. B. S. Haldane, Sigmund Freud and Carl Jung, together with their more recent commentators. Those quoted - Sir Cyril Burt, Sir Charles Sherrington, Sir Alister Hardy, Sir Sarvepalli Radhakrishnan, Karl Barth and a dozen or so others among them - all argue that the mind and personality, while intimately connected with the brain, *'Cannot be wholly identified with it, and need not therefore perish at physical death'* (*'Survival?'* p 162). Thus is the reader prepared for the comprehensive examination of supernormal phenomena that takes up the remainder of *'Survival?'*.

Psychical research fits uneasily with both the medieval outlook and Cartesian science. According to G. N. M. Tyrrell, a former President of the Society for Psychical Research, *'People sheer away from it... They feel that they cannot cope with it, and are unwilling to make the drastic overhaul of their cherished convictions, which the subject demands'* (*'Survival?'* p 153). But David counters with reference to David Bohm's 'implicate order', quoting Schopenhauer, Kant and others in strong support of consistent findings regarding clairvoyance, telepathy, out of body experiences (OBEs) near death experiences (NDEs), apparitions and the rest.

Part Two begins with a full chapter devoted to the extraordinary life and remarkable psychic abilities of Emmanuel Swedenborg, who was born in Stockholm in 1688. Capable of clairvoyance, precognition, telepathy, and the ability to converse with spirits, his own attitude towards his experiences remained remarkably low-key and persuasively matter-of-fact. Next is a chapter on apparitions of various types, examples being taken from an unsurpassed publication from 1886, *'Phantasms of the Living'* by Gurney, Myers and Podmore, in which over 700 cases are described. Two following chapters rely on more recent research and the author, Celia Green's 1968 publication of her findings on studying 400 cases. Twenty-five of these are summarised in Chapter 9 to bring out the principal characteristics of OBEs. A further eighteen case descriptions of NDEs are discussed in Chapter 10.

Accounts in Chapter 11 of, *'Post-Mortem Descriptions of Bodily Death'*, differ slightly, in that a living person must communicate with the dead and relay their comments: thus the voice of George Hopkins (deceased) is heard through a medium called Leslie Flint, as reported in a 1975 book by Neville Randall that details 500 such cases. Ten accounts are repeated here (including that of 'Bertrand Russell', communicated through Rosemary Brown), the conclusion being that, *'The conscious self survives physical death intact, finds itself released from any pain, experiences feeling freedom and lightness, expressing itself through a body identical in form to the physical body but not subject to its limitations of space and time'* (*'Survival?'* p 292).

In the concluding chapter, there is a succinct summary of the findings of Part Two plus additional comments, for example that people can be thought of as three-fold beings with physical, 'etheric' and 'astral' bodies. William James, too, is quoted: *'The visible world is part of a more spiritual universe'*, and, *'Union with that higher universe is our true end'* (*'Survival?'* p 302). It all sounds literally divine.

*'Resonant Mind'* is similar to *'Survival?'* but goes further. In his Introduction, David writes that his aim is, *'To suggest a new metaphysical basis for moral order, the insights for which arise in the empirical soil of the near-death experience'*. He highlights in particular both the 'life-review' and 'unitive consciousness', from which he derives a theory of 'empathic resonance', by which people ('we') are able *'to enter the consciousness of another as if it were our own'* (*'Resonant Mind'* p xvi). Chapters on *'Memory and Life-review in NDEs'*, *'Post-mortem Life Review'*, and, *'Empathic Resonance and Unitive Consciousness'* follow, building adroitly to a bold discussion of *'Moral Order in Karma and Reincarnation'* in what is perhaps the richest chapter of the two books so far.

*'As you sow, so shall you reap.'* This vital idea and its association with rebirth is first traced to ancient Indian origins in the Upanishads by means of a helpful glossary of eleven terms, including 'Brahman', 'Atman', 'Avidya', 'Samsara', 'Dharma' and, of course, 'Karma'. How these ideas and principles fit in with Buddhism and also the works of Plato, form the next section. That they are supported by evidence from so-called 'channelled teachings' and 'hypnotic regression' (into past lives), by the metaphysics of the clairvoyant Edgar Cayce (born in 1877) and the anthroposophy of Rudolf Steiner, follows, before the final section in this chapter expertly summarises and develops an account of *'karmic moral order and spiritual evolution'*. Admirably deep, thought-provoking stuff!

Equally dazzling are the integrating chapters on: *'The Emergence of Post-mortem Judgement'*, *'Eschatology and the Christian Moral Order'*, and, *'Faith and Works, Heaven and Hell'*, the last of which harks back to the earlier book, developing such subjects as death and judgement in medieval



Europe, the issues of purgatory and the sale of indulgences, then Martin Luther and the Reformation.

Only with Chapter 8, 'The Eclipse of the Spiritual World-view', do we reach the present (or at least 1990), and an earnest critique of 'scientific materialism', as in the following: *'The trend away from living religion has taken many thinkers... towards a position of explicit agnosticism or implicit atheism. In these... the divine and metaphysical orders are eliminated, all phenomena being accounted for by natural physical causes* (p 197). *The neglected factor is perhaps the inner dimension of spiritual and mystical experience*' (p 207). *The methodology of scientific materialism leads to a picture of the universe devoid of purpose, value and meaning* (p 219). 'We' may not disagree; but then, we cannot in truth speak for 'Them'. In the end, as David has already suggested, it is a deeply personal matter and, *'The reader himself must judge*' (Survival? p 182), but this is not the end of the discussion.

The final chapter of 'Resonant Mind' is called 'Ethics, Interconnectedness and Responsibility', indicating a possibly grim future for mankind, accompanied by... *'The generalised fear evoked by... a prospect of global collapse... allied to an equally widespread apathy and helplessness.'* It reminds readers, *'One thing is certain: that our bodies will one day die'*, adding plainly, *'Our philosophy of life is intimately related to our philosophy and expectations of death'*. Here is the challenge, to resist despair, and the book's final pages are occupied by a much more positive, even uplifting section called, *'Towards a Living Ethic'* - an ethic of love and reverence for life - containing sub-sections on moral development, education, and the power of creative thought, leading people throughout life towards (quoting Lawrence Kohlberg), *'A sense of connectedness between the individual mind and heart and the larger cosmic whole or order which they call almost equally readily God, Nature, Life or ultimate reality'* (p 242).

In his final paragraph, turning from death back to life, David concludes, *'Our true meaning and vocation lie in answering the call to wholeness and fulfilment of Love, the great integrating principle of the inner world, so that it becomes a*

*harmonising and radiant force in our feelings, thoughts and actions.'* This consummation of all his preceding ideas, so lucidly and comprehensively expressed and integrated throughout the two books, serves to explain the man, an exemplar to all, 'Us' and 'Them' alike. If not exactly a call to arms, his vision represents at least a wise invitation to immediate and necessary further deep personal contemplation and mutual support.

David Lorimer has done everyone an enormous favour. 'Survival?' and 'Resonant Mind' together represent a remarkable, generous and masterly achievement. The only other serious regret readers may have concerns the time lapse between original publication and re-issue. In many ways, the arguments stand, but there has been no significant updating of the two texts, and there have been some important trends and developments in the intervening years. In addition to recently published work on NDEs, for instance, Iain McGilchrist's much lauded book, *'The Master and His Emissary: The Divided Brain and the Making of the Western World'*, published in 2009, is a useful case in point.

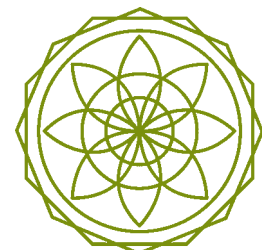
According to McGilchrist, the two brain hemispheres function similarly but run on markedly different agendas. They support two valuable ways of being in the world that are antithetical to each other. Scientific materialism is arguably compatible mainly with the workings of the 'dualist' left side of the brain. This deals with parts of the whole, with pieces of information in isolation, fixing and making each thing explicit by bringing it under the spotlight of attention, but in doing so rendering things inert, mechanical and lifeless. Overemphasis on left brain function, then, results in dehumanisation, in people who will listen but cannot understand, who look but cannot really see. The left brain is so averse to uncertainty and doubt that it often copes by arbitrarily picking just one interpretation as correct. Capable solely of binary (either/or, right/wrong) thinking, it prefers what is familiar, impatient with all other possibilities, which it construes therefore as wrong. The left brain thus commonly insists it is right, even when mistaken and in the face of evidence.

Much more in tune with 'Us', and with the aims of the Network, is the brain's 'holistic' right hemisphere.

This, in contrast, pays attention to whatever is new, exhibiting breadth and flexibility of attention like a floodlight, allowing people to *experience* (to know intimately, rather than simply know about) the unified, live, complex, embodied world of individual, unique beings; a net of interdependencies, a world with which we are all ('Us' and 'Them') deeply connected. It is the seat, therefore, of what David calls 'empathetic resonance', of self-awareness, humour, creativity and intuition, of joy, peace, wisdom, compassion and love.

These insights carry an obligation to re-frame the debate, not as external - between 'Us' and 'Them' - but as internal, within the compass of a single brain and mind, a single consciousness. They allow and encourage us (all of us) to think of ourselves as capable of *both* rational, evidence-sifting, materialist thought *and* emotion-laden, empathic, intuitive, even mystical experience; and not be satisfied until we fulfil and integrate our dormant potential for both. We can be confident that harbouring the tension between the two agendas will impel growth towards points of resolution, epiphanies large and small that accumulate along the road to wisdom and maturity. The task is less to convince intransigent left-brain dominated others ('Them') of the hitherto neglected right-brain way of understanding and experiencing the world. It is rather to re-establish and retain - long before death - a balance between the two complementary halves within ourselves; to champion spiritual values over material ambitions and, guided by an undoubtedly spiritual sense of all-encompassing sacred unity, steadfastly to maintain *'the ethic of love and reverence for life'* about which David has so eloquently written. As I see it, this is the true gift and message behind these wonderful books.

*Dr Larry Culliford is the author of Seeking Wisdom - A Spiritual Manifesto (UBP 2018).*



## IN THE HEART OF CONSCIOUSNESS

David Lorimer

### ■ LIVING IN A MINDFUL UNIVERSE

Eben Alexander and Karen Newell  
Piatkus, 2017, 272 pp., £14.99,  
p/b – ISBN 978-0-349-41743-1

As readers may recall, Eben Alexander is a neurosurgeon who had a life-changing near death experience in 2008. In his third and most extensive book, co-authored with his partner Karen Newell, he spans science and spirituality to present a comprehensive life philosophy of meaning and purpose arising from his experience and wide-ranging research. It is an adventurous exploratory journey moving beyond the boundaries of neuroscientific materialism which formed his previous horizon.

This began with the process of deconstructing his former scientific belief system through questioning his foundational assumptions still shared by almost all his former colleagues. The essence is that consciousness is not in fact produced by the brain, but the brain acts as a filter or reducing valve, as first proposed over 100 years ago by William James, FCS Schiller and Henri Bergson and more recently developed by University of Virginia scholars in the books *Irreducible Mind* and *Beyond Physicalism*. Conversations with conventional thinkers ‘blindsided by their underlying assumptions’ are revealing in the light of a lack of a theoretical framework causally linking the brain with consciousness beyond correlations. Steven Novella expresses certainty that the mind is essentially the brain on the basis of analysis of the neuroanatomical correlates of consciousness. He states that we absolutely know that the brain creates consciousness and that ‘consciousness is what the brain does’. He admits that we do not yet know how this happens – this is the ‘hard problem’ – but when challenged to be more specific he is at a loss. In other words, the idea that the brain gives rise to consciousness is a theoretical postulate based on structures and interpretations of current research. Even in his day, William James realised that this theory accounts well for conventional experiments, but not for the further reaches of conscious experience. The same is true today.

In another revealing encounter with sceptic Michael Shermer, he discusses Shermer’s extraordinary account of a defunct radio suddenly coming to life in a drawer on the occasion of his wedding, which seemed at the time to be some kind of communication from his wife’s grandfather. However, a year on, they come to the understanding that this had a perfectly natural explanation. When challenged to expand, he said it could not have been supernatural so there must have been some rational explanation – but he could not say what this might be. The pattern of his story is similar to other after death communications in timing and content. A neuroscientist who did change his mind about the relationship between brain and consciousness was Wilder Penfield in his last book published in the 1970s, showing an admirable openness of mind and not resorting to the temptation to fit evidence into a predetermined conclusion.

Eben puts forward a primordial mind hypothesis consistent with quantum physics in a form of metaphysical idealism acknowledging the oneness of the universe within consciousness or the Universal Mind, as suggested by New Thought writers over 100 years ago. He relates this to the filtering function of the brain, observing that he experienced a much broader contact with universal consciousness characterised by ultrareality without a properly functioning brain filter. He quotes an interesting study published in *Scientific American* by a group from Imperial College studying the effects of LSD through fMRI: ‘the most extraordinary experiences were reported by those subjects who had the greatest inactivation of their brains junctional centre network activity.... As the brain becomes less active, internal mental experience actually becomes more active’, a finding also consistent with meditation studies. Eben comes to the conclusion that God or the ordering intelligence ‘is actually the very source of our conscious awareness as sentient beings. There is no separation between the ultimate creative force and our conscious awareness of existing in this universe. The observer, self-awareness of the universe for itself, *is us* at the deepest level’ (p. 70) it is important to

emphasise, as he does, that by consciousness he means the observer part of awareness, the *knower* of the knowledge – the witness of the Upanishads.

This and other similar books draw on a level of intuitive knowing beyond rational analysis, which used to be defined as a function of the intellect rather than reason in gnostic and mystical circles. It is an interesting reflection that modern accounts of mystical and near death experiences insist on the validity of their noetic nature, suggesting that we should reinstate this lost faculty of apprehending reality by becoming one with it – contemplation rather than observation. This means trusting personal experience and looking for coherent and consistent patterns of explanation. Here Eben covers quite a bit of research ground as well, including ganzfeld studies, heartmath, memories from previous lives, reincarnation, placebo and the power of belief.

This brings him to the heart of the matter, namely that spiritual light is love with which we can align, also by exploring consciousness more deeply, for instance through sacred acoustics. He himself experienced this infinite love, remarking that ‘such oneness and dissolution of the sense of self, and complete identity with all of life and the source of all that is, is the pathway towards truth.’ (p. 227) He continues that ‘the deepest lesson of my journey was realising that unconditional love was the very fabric of the spiritual realm from which the totality of reality emerges.’ He reports an experience of this with Ram Dass, quoting him as saying that ‘we come to see the oneness we share, oneness we are – together’ (p. 230); and his injunction ‘just love until you and the beloved become one’. This is the essence of the mystical path.

This is a courageous book in venturing into personal and metaphysical realms but without losing the enquiring and open spirit of science in the process – it may

be a step too far for some, but such a response is likely to arise from the reader’s own inner structures and philosophical assumptions.



## CHILDREN ARE OUR FUTURE

Martin Lockley

### ■ UNDERSTANDING DEEPER DEVELOPMENTAL NEEDS IN CHILDREN

Adam Blanning

2017 Lindisfarne Books,  
504 pp., \$35.00, p/b  
ISBN 978-1-58420-950-8

In this fascinating book Adam Blanning, an MD and founder of the Denver Center for Anthroposophical Therapies, delves deeply into the tradition of Anthroposophical Medicine to share remarkable insights into the complex and subtle needs of children as they undergo early cycles of formative development. Although drawing heavily on the esoteric wisdom of Rudolf Steiner on the subject of the physical, emotional, intellectual and spiritual development of children, *Deeper Development (DD)* conveys a non-derivative and authentic sense that Blanning is as deeply engaged with the nuanced calling of a dedicated child therapist, as Steiner clearly was. Much as I found the intellectual insights extraordinarily illuminating from a biological, psychological and spiritual viewpoint, the real proof of the pudding is that, like Steiner, Blanning is a practitioner. *DD* is not just a fascinating, educational exposition on Anthroposophical Medicine, it also includes an extensive appendix as a guide for physicians, paving the way for putting therapeutic remedies into practice. I immediately thought to share copies of the book with my children to benefit the well-being of my grandchildren. Trite as it sounds, 'children are our future.'

Having acknowledged that therapeutic applications move us beyond abstract theory, it is still helpful, if we understand the deeper spiritual philosophy on which Anthroposophical Medicine is based. Blanning explicitly assumes the reader is familiar with the threefold human being (of nerve-sense, rhythmic and metabolic-limb system) and the fourfold human constitution comprising, physical, etheric, astral and spiritual ("I") 'bodies,' 'members' or dynamic forces of the Anthroposophical tradition. He gently dismisses the "fatalism in materialistic views of the body as a complex machine" and introduces the fourfold constitutional paradigm

of dynamic change to enliven our view of the human being. Far from being 'components' of a physical entity (individual) our four fold constitution is more like a complex of interacting fields or forces, ('bodies' in the non-material sense, like a 'bodies of work'), at work as dynamic developmental processes, always in flux, interacting with the seen and unseen to inform our potential to achieve or upset balance, individually, in the family and the community. Put another way, while human development, ontogeny, biography, evolution, or whatever one might call it, is fascinatingly complex, it is also what 'constitutes' our very being, in which we have the capacity to be engaged at all these dynamics levels.

What the ill-defined 'mainstream' will likely not accept [excuse the generalisation] is the thesis that each human incarnates (reincarnates), from above (heaven) bringing "their spiritual heritage from previous experience (carried in the astral body and "I")... to... encounter ... the hereditary stream in the earthly realm (carried in the physical body). We receive only the physical body from our parents. The rest we bring with us from other realms." [Know anyone who laments, feeling like aliens in a misfit body or family? They may be working out this balancing act!] To appreciate this paradigm we need to think "in polarities" of Heaven and Earth. [This is perhaps not so difficult. Despite modern medicine's materialist leanings, we are culturally, linguistically, scientifically, and spiritually steeped in conceptual polarity: mind - matter, tangible - intangible, known - unknown, heaven - earth, mortality - immortality].

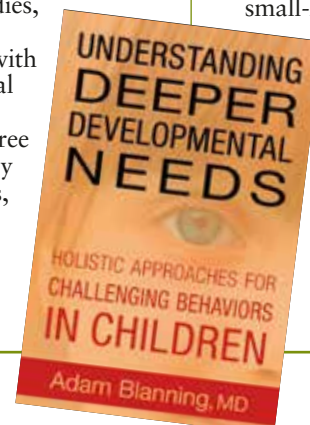
With this philosophical rationalisation in mind [or in hand!] we can move on to the dynamic process of childhood development. Here in the recognition of three seven-year-cycles of development which integrate the higher (spiritual, sensory, psychological) bodies with the lower, earthly bodies, Anthroposophy may converge somewhat with non-Anthroposophical thinking. Blanning points out that the three cycles, well-marked by physiological changes, involve integration, differentiation and completion processes that bring the

fourfold human body into healthy balance. I was fascinated to learn how much obstacles to the healthy unfolding of these processes not only manifest in behavioural imbalances, like oft-cited ADD, ADHD etc., but also in physiologically recognisable symptoms and even in the actual physical growth of the body into subtle variations of constitutional type (referred to in non-Anthroposophical language as ecto-, meso- and endo-morph, or cerebro-, musculo- or viscero-tonic).

Blanning discusses Steiner's understanding of the interaction between various polar forces: e.g., spiritual-astral (Cosmic) on the one hand and hereditary etheric and physical (Earthly) on the other. Steiner recognised at least three different, independent polarities: 1: earthly/feeble and cosmic/maniacal, 2: large-headed and small-headed, and 3: the epileptic / hysteric). Regarding the first polarity the "cosmic child" lives intellectually in his/her head (nerve-sense realm) rather overwhelmed by sensory (astral) impressions which hold them in the "dreamy" often abstract realm, removed from the "strong pull of deep passions and feelings" of the Earthly realm of blood and emotion. The second polarity, of large- v. small-headed is linked to relative development through time. Counter intuitively, in the small headed child the head (seat of the nerve sense system) has completed development (rigidified) too early, without fully integrating or modifying (releasing) the flow of etheric forces into the still-pliable, growing body.

This compromises balanced development of both. The small headed child therefore tends to be pale (decreased blood flow to head) less engaged and even critical of the general environment and often choosy about food. By contrast the, large-headed child has a well-developed metabolic-digestive system (healthy appetite) and rosy cheeks from ample or 'excess' flow of metabolic forces to the head. The small-headed child is more detail

oriented and analytical, arising from awareness of diverse sensory stimulations, whereas the large headed child is much more embedded in the general 'feel' of the environment, and the big picture. The third, epileptic / hysteric polarity, like others, is





difficult to define in a few words. It pertains to how developmental shifts are navigated, steadfastly, or with a cautious holding back: a self-protective waiting to engage. Such polar distinctions strike me as helping one understand differences between the cerebrotonic and viscerotonic constitutions, analysis v. synthesis, induction v. deduction, but in each case the nuances and individual expressions take us far beyond stereotyped definitions.

DD is a wide ranging tome. Although divided into three parts dealing the polarities of integration differentiation and connection, it is not just about development during these three youthful seven year cycles. Part 1 concludes with an exposition on “the process of integration in later life” and “ways to strive to deepen our soul life.” Following Steiner, we are reminded that morality must be acquired, or re-learned in each incarnation, and that six exercises in conscious integration serve as a preparation for fruitful spiritual striving. These are: “control of thinking, control of actions, equanimity, understanding every being, ... complete openness” and integration of these five exercises, each of which should be practiced for a month. These constitute a developmental pathway to self-control and self-awareness. In Part 2, dealing with differentiation we learn that “thinking activity is possible” because the “higher members [faculties] are liberated from an intimate connection with the substance of the physical body.” “The nerve sense system is thus capable of independently developing all activities related to the spirit soul...” From a developmental viewpoint this means “awakening into thought and sensory activity.”

In the spirit of the six aforementioned exercises we are well advised to “look honestly at our own constitutions... learning about our strengths and imbalances” so that we may “honour and accept our constitutional leanings... and not be defined by them.” Know thyself and, as G.K. Chesterton would advise, know your human weaknesses. Part 2 also concludes that “building an inner foundation” helps us “meet the outer world” and we are treated to an interesting analysis of the tale of *Snow White and the Seven Dwarfs*. Her red lips and snow white skin, as well as her warm relationship with the dwarfs represent a healthy balance of blood and nerve (between nerve-sense and

metabolic systems), between individual and others. In contrast the evil, envious, lonely queen is so ‘nervously’ out of balance she can find no rest, and not only demands Snow White’s death (bloodshed), but her lungs and liver (metabolic organs), as a desperate remedy to restore her constitutional balance.

In Part 3 dealing with the third, seven-year cycle (ages 14-21) the theme of connection is well illustrated by the notion that post puberty we are “no longer complete within ourselves ...we need another human being of the opposite sex...” for authentic connection. Simultaneously adolescents need to feel closer to peers, but also more isolated, as the awakening of the senses (the astral body) expands outer awareness. The polarity of waking and sleeping, represents a tidal, rhythmic, ebb and flow of the astral body in (centripetally) and out (centrifugally) of the physical body. During this and other periods the ideal is to find healthy balance, a process which may take us the ‘rest of our lives,’ with phases of rapid flux and calm consolidation. The challenge is to understand how we may lean too far one way or another. Knowing our constitutional comfort zone, and imbalance inclinations, allows us to honor our natural gifts, but also to step back from them in order to transform and refine them, owning them in a different way. This threefold process represents an evolution from the ‘sensing’ soul (observing the world) to the intellectual or ‘mind’ soul (working over our impressions with the inward eye) to developing the ‘consciousness soul’ by reconnecting our soul life with the outside world, with “genuine interest,” which involves authentic connection to and “service” of others. The greatest service we can offer is to our children, by more deeply understanding their developmental needs. To do this well, involves dynamic learning, knowing ourselves, our imbalances and how they may be used to good advantage and perhaps transformed. In this way we connect with our children, our collective humanity, our spiritual consciousness soul and the future.

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## BELIEVING IS FEELING

Gunnel Minett

### ■ HOW EMOTIONS ARE MADE: THE SECRET LIFE OF THE BRAIN

Lisa Feldman Barrett

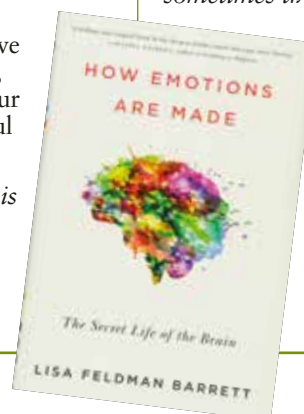
Houghton Mifflin Harcourt  
Publishing Company, 2017,  
425 pp., illustrated, h/b, £17.75  
ISBN 978-0-544-1331-0

Normally we would probably say ‘feeling is believing’ but there is no mistake in the headline. This book presents a new understanding of the emotions that turns our ‘classical’ common sense understanding on its head. The classical view of emotions is, in the words of the author: “*The time-honored story of emotions goes something like this: We all have emotions built in from birth. They are distinct, recognisable phenomena inside us. When something happens in the world, whether it’s a gunshot or a flirtatious glance, our emotions come on quickly and automatically as if someone has flipped a switch. We broadcast emotions on our faces by way of smiles, frowns, scowls, and other characteristic expressions that anyone can easily recognise.*”

But, rather than searching for inbuilt areas in the brain where our different emotions are based, the author argues that we need to see emotions as constructed in the moment, by a number of core systems interacting across the whole brain.

She writes: “*Emotions are not actions to the world. You are not a passive receiver of sensory input but an active constructor of your emotions. From sensory input and past experience, your brain constructs meaning and prescribes action. If you didn’t have concepts that represent your past experience, all your sensory inputs would just be noise. You wouldn’t know what the sensations are, what caused them, nor how to behave to deal with them. With concepts, your brain makes meaning of sensation, and sometimes that meaning is an emotion.*” (p. 31)

Even if it feels counter-intuitive to see emotions as our constructions, science is gradually proving to us that the classical view of emotions is not correct. One reason why we may struggle



to accept that this is wrong is that, from Plato onwards, the most common view has been that emotions are automatic reactions triggered by areas in the brain that are hardwired. The most common view in science is still that emotions happen to us because we have inbuilt neural systems that get triggered and cause stereotypical expressions. At best we can control our emotions with rational thoughts and/or willpower. Much in our culture and society is based on this view. It wasn't until technical development made it possible to study the brain in 'real time' that the classical theories were challenged.

One type of study that brought the classical view into question was surveys of different tribal groups living in isolated areas of the world. The aim of the research was to see if they reacted the same way to emotional expressions as human beings in other parts of the world, given that they only had contact with their own groups. The conclusion was that there are regional emotional expressions that are unique to a particular area or culture. There are no universal expressions of emotions. But if emotions were triggered by specific brain areas the reaction and emotional expression should be the same for all human beings.

By scanning the brain, the theory of different brain areas being triggered was equally refuted. On the contrary, the findings were that even if our brains are similar, on a more detailed level each brain is different. It was also found that even if the expressed emotions were similar, they could be caused in different ways in the brain.

Feldman Barrett writes: "*Scientists have known for some time that knowledge from the past, wired into brain connections, creates simulated experiences of the future, such as imagination.... An instance of a concept, as an entire brain state is an anticipatory guess about how you should act in the present moment and what your sensations mean.*" (p. 122)

To be more precise she describes it as: "*Simple pleasant and unpleasant feelings come from an ongoing process inside you called interoception. Interoception is your brain's representation of all sensations from your internal organs and tissues, the hormones in your blood, and your immune system.*" (p. 56)

So rather than being a split between body and emotion, or thought and emotion, or different areas of the brain triggering different emotions, it is a process that involves all parts; "*Interoception is actually a whole-brain process, but several regions work together in a special way that is critical for interoception.... The interoceptive network issues predictions about your body, tests the resulting simulations against sensory input from your body, and updates your brain's model of your body in the world.*" (p. 67)

The conclusion drawn from this is that emotions have more in common with other bodily functions designed to establish homeostasis in the body. And far from being direct reactions to external stimuli that we have little control over, emotions are there to assist and help us in our daily lives. "*...your brain has a mental model of the world as it will be in the next moment, developed from past experience. This is the phenomenon of making meaning from the world and the body using concepts. In every moment, your brain uses past experience, organised as concepts, to guide your actions and give your sensations meaning.*" (p. 125)

The fact that our brain uses past experiences to give us meaning and to guide our actions brings a whole new meaning to the need to create the best possible environment for ourselves. The book highlights two areas in society in particular: emotions and illness and emotions and the law. In both cases this new understanding of emotions changes the picture drastically. If we focus on emotions aiming to create homeostasis it will be obvious that we should make sure hospitals are an overall positive experience for the patient since this may influence their healing potential. As regards the legal framework it is heavily biased towards the classical view of emotions. The author lists a number of examples, such as judges and juries being more lenient after lunch than if they are hungry; or if and how we can tell whether a person 'shows remorse' (important for parole boards). These issues become problematic if there is no fixed way of showing emotions.

The book also deals with the fact that emotional concepts have social reality. We may not see it as such

but how we perceive our everyday reality is closely linked with our emotions. Not just that we tend to feel happier when the sun is shining. Our emotions influence our thoughts and perception of the world. Feldman Barrett describes this as: "*...you have genes that let our brain develop in the context of the other brains around you, through culture.*" (p. 156). That means that we influence each other and co-create a world that is far less objective and independent than we tend to see it. Something to pay attention to, in particular when it comes to children growing up. Rather than growing up in a world that is independent of us, they learn from us how to perceive and react to the world they see as reality.

We have no real way of measuring the influence of the Internet and other media on our brains and emotions and how this changes culture. But if we start seeing that our emotions are learnt from culture and society to a large extent, it is high time we start investigating the real effects. To have constant exposure to news and social media, often with a bias towards negative events (not to mention the increasing stream of violence as entertainment in films) may have a bigger impact on our bodies and minds than we think. Or as the author points out: "*It takes more than one brain to create a mind.*" (p. 154)

## WHERE SCIENCE AND THE SACRED INTERSECT

James Cowan

### THE SACRED REVIVAL

Kingsley L. Dennis

Select Books, 2017,  
238 pp., \$22.95, p/b  
ISBN 978-1-59709-433-4

The role of consciousness has never been more fiercely debated than it is today. It is as if some new organ has recently been discovered in the physique of men. With this emphasis between brain and thought being so actively discussed there is now a sense that 'consciousness', as such, is finally taking over as the driving mechanism of the human species, not its reliance upon custom or collective emotive states.

In a new book by Kingsley L. Dennis, *The Sacred Revival: Magic, Mind and Meaning in a*



*Technological Age*, the author attempts to address what is now a post-modern obsession: how can the mind be integrated into the mechanisms that it creates? That the mind might be digitised, and so objectified with a view to externalising its presence outside the body, has become one of the driving ambitions of modern science.

Dennis charts this evolution in thought with eloquence and erudition. He has found a way to enter a field that most people find daunting. The idea that nature has been superseded by what he calls the 'human matrix' as the basis for all scientific inquiry, in order that humankind might finally 'create itself' as something more than a collection of genomes – but rather, invoke a new neurological universe in the mold of Teilhard de Chardin's 'noosphere' – is central to his argument.

He puts forward a powerful case to the effect that humanity is on the cusp of giving birth to a planetary civilisation that makes all other localised cultures partly redundant. It is doing so by way of a relentless search for new ways of thinking within the preserve of our techno-scientific mindset. In other words, we can think ourselves into a condition once framed by Nietzsche as the *ubermensch*, that of the so-called 'Overman' capable of becoming more than himself.

Dennis argues that this is being brought about by our capacity to 'dream the world into being'. He calls this activity one of *imaginal* possibility – a combination of the imagination and the intellect. It is a word first coined by Henry Corbin, the great Ismaeli scholar of the twentieth-century. The imaginal, he maintains, offers us a powerful tool to inhibit science's headlong rush into bio-technologising the human species – making them, in a sense, merely transhuman. Transhumanism, a pernicious craze among an agnostic elite at this time, is a neat way of excluding the sacred imperative from the process. From here on it says, humankind will not have any need of the gods, of the sacred precinct, or of the act of deep meditation itself. These are to be seen as relics of a bygone thought era.

This, Dennis argues, represents a subversion of who we are, and what we wish to be. He does not say it as such, but the pre-Socratic philosopher Parmenides did: that

there must be an acknowledgement of Limit if humankind is not to destroy itself by way of its excessive curiosity. The neurological sciences, and their current collusion with technology, has yet to acknowledge that there might be a risk in subjecting man to the excesses of his own investigations, just as nuclear scientists in the past failed to observe the consequences of theirs.

Dennis insists, however, that there may be a way forward in our desire to dream the world. It relies on a recognition that the sacred, what Otto called "the idea of the holy", does have a role to play in helping humankind to augment its own capacities, even as it engages with this emerging techno-scientific paradigm. A delicate balancing act, surely, but one that Dennis believes is possible if we remain cognoscente of our past and of our timeless inheritance. If there is to be an 'altered state of consciousness', then it must not be at the expense of the great spiritual traditions that have underpinned our existence since time immemorial.

Dennis draws upon a wide range of research in the fields of neurological and social sciences, as well as the latest knowledge derived from laboratory experimentation. He resorts to a variety of thinkers to inform his argument. One of them, Terence McKenna, writes that "language has infected matter", a statement that goes to the heart of Dennis's argument: that matter is now an extension of human thought. That matter is also a 'sacralised object', as traditional peoples observe (viz. Native Americans etc.), does not escape him, either.

The task Dennis asks the reader to address is whether he or she is content to live inside this new human matrix derived solely from science, without any continued link to the sacred. The idea that *theos* and *bios* might find a way to resume their ancient connection, as detailed by the Greeks and later the alchemists, in order that humankind continues to live as a spiritual being and not as a mere biological function, goes to the heart of his thesis. In other words, ancient traditions, esoteric doctrines, and religions have an important role to play in preserving the extraordinary wonder that is us.

*The Sacred Revival* is a deeply informative work. The gee-wizardry of modern science is gently rebutted. Dennis tells us that a greater

maturity of thought is required, outside of the laboratory and its enthusiasm for discovery, if we are to press forward into a physical world that is ever-expanding, while remaining true to our hard-won subjective world, one free from the contingencies and depredations of time. The timeless is still relevant because it is attached to something other – to what the medieval thinker John of Ruusbroec called the "ghostly life". Thus, self-realization is more than an electrode attached to the brain and then scanned onto a screen for objective assessment. It is a spiritual deposit more resolved than any accumulation of data projected onto a future noo-computer yet to be devised.

*The Sacred Revival* will help all those who may be confused by the recent onrush of neuro-scientific discoveries and their claims. The 'human matrix' must be seen for what it is: a blend of the miraculous, objective knowledge, and the mysterious *pneuma* of the ancients that still permeates the cosmos, which cannot be isolated through experimentation or analysis.

*James Cowan is author of the international bestseller A Mapmaker's Dream, and A Troubadour's Testament, Desert Father, and Fleeing Herod.*

## ECOLOGY-FUTURES STUDIES

### THREEFOLDING A CENTURY ON

David Lorimer

#### ■ FREE, EQUAL AND MUTUAL

Edited by Martin Large and Steve Briault

Hawthorn Press, 2018,  
275 pp., £20, p/b  
ISBN 978-1-907-359941

This volume explains the origins and contemporary relevance of Rudolf Steiner's Threefolding, developed as a contribution to conditions for lasting peace in war-torn Germany between 1917 and 1919. The subtitle of rebalancing society for the common good suggests the need for a harmony between the three components of business and economy, state and politics, and culture. The title refers to the aims of these three areas: freedom in cultural life at the individual pole, equality of rights in political terms, and



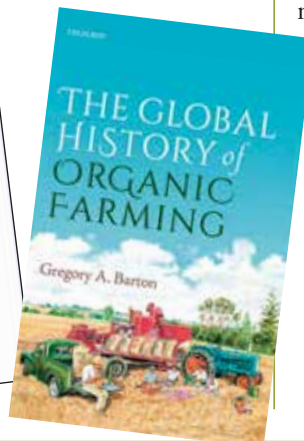
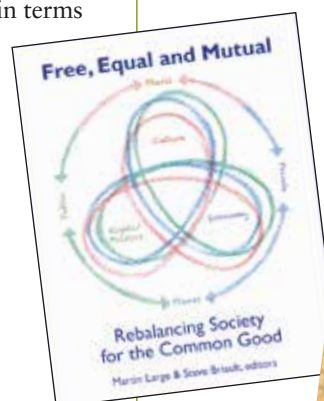
mutuality in economics. The original formulation in 1917 uses the term liberty in cultural life, meaning individual development, free enquiry, pluralism and tolerance as a means of overcoming antipathies. In the political or rights sphere, the aim is equality in terms of democracy, justice, participation, universal humanity and recognition. In economic life this is expressed as fraternity – mutual support, collaboration, association and new sympathies, as opposed to an overemphasis of competition. Steiner's own definition is 'socialism in economic life, democracy for the life of rights and individualism for spiritual life.' (p. 55) The authors in this volume suggest that we need a much stronger contribution from culture to balance that of economics and politics.

Early contributions explain the historical background and influence of Steiner, while later chapters consider current challenges, inspired initiatives and openings for the future. Andrew Scott considers two different views of the human being, one dominated by what he calls noisy images of the human as separate from God and dominating nature, with the emphasis on economics and humans as beasts and mechanisms which, he then explores in various manifestations before proposing the quieter images of knower, individual, and human being as an evolving holon. Christopher Schaefer sets out nine propositions relating to the social world moving towards empathy, caring and love through a process of dialogue and consensus. Steve Briault applies this model to work and organisations with a threefold structure, culture and process intersecting with purpose in the centre.

In setting out the challenges, Martin Large notes that we live in a corporatocracy where the market has captured much of the state and plural sector, for example in terms of privatisation and the idea that education should be fundamentally utilitarian. He provides some excellent and informative diagrams characterising the current situation and the one he feels is desirable. Financialisation has been rampant and the ethos of society has become materialistic and consumerist, with an

emphasis on accumulation of capital and predatory power exploiting and destroying our natural resources or simply commodifying them. The potentially emerging model rebalances our relationships, restores agency and creativity, and regenerates the earth. However, the next chapter demonstrates the opposite dynamic in analysing the two forms of shadow represented by Trump and Clinton in the 2016 US election, suggesting that we need to work through aspects of the collective shadow. Inspired initiatives include a description of SEKEM as a model for holistic sustainable development in Egypt and a living example of 'what is possible if one has a strong vision, the will and the involvement of like-minded people who support the idea with a similar level of awareness'. (p. 150) The same applies to the Tamera Community in Portugal, where I am writing this review – they have transformed a very dry and exploited area with water retention schemes creating lakes and a fertile landscape. This is a continuing process of manifestation based on vision and a clear set of ideas and values. There is then a chapter on the food movement and one on community land trusts. Richard House proposes an education beyond capital and the neoliberal state, cautioning the move towards effective privatisation of the school system, effectively incorporating schooling into the business sector, with predictable consequences.

The last part considers openings for co-creating our social future, with a chapter on conversation and dialogue, partly based on David Bohm, and with an emphasis on the sympathetic economy, equality and empathy - all of this is summed up in a useful chart on p. 223. I found the threefolding framework a very useful tool for considering the roles, relationships and interfaces between culture, politics and economics.



The editors pose a number of pertinent questions that can serve as criteria for assessing progress in all three areas, and there is a course considerable room for improvement. They usefully sum the book up in the following sentence: 'the more that freedom informs cultural life and the plural sector, the more that equality guides political life, human rights and the public sector, and the more fraternity or mutuality guides business and economic life, the more creative, socially just, democratic, healthier, prosperous and sustainable will be our society or "commonwealth"' (p. 254) The book serves as a further example of how relevant the thinking of Rudolf Steiner can be to our time, characterised by Nicanor Perlas in his foreword as VUCA - volatile, uncertain and unpredictable, complex and ambiguous. He is surely right in insisting on the need to activate and engage civil society to wield cultural power in order to help transform our economic and social systems.

## ORGANIC ENVIRONMENTALISM

David Lorimer

### THE GLOBAL HISTORY OF ORGANIC FARMING

Gregory A. Barton

Oxford, 2018, 242 pp., £30, h/b  
ISBN 978-0-19-964253-3

Gregory Barton is Professor of History at Western Sydney University and the University of Johannesburg, whose earlier books include *Empire Forestry and the Origins of Environmentalism*. One can see a link with this new book between forestry regeneration and organic agriculture and the way in which both feed more broadly into the modern environmental movement. The author had access

for the first time to the family papers of Sir Albert Howard and his wives Gabrielle and Louise, who were in fact sisters (Gabrielle died in 1930).

Those familiar with organic agriculture will probably be familiar with Howard (1873-1947) and his contribution to its origins, but this book sheds new light on the extent not only of his influence but in particular that of his second wife Louise after his death.

The author relates a telling anecdote at the beginning of his final chapter, when a Brazilian walks into the information centre at Bishop's Castle, where Howard grew up, asking where his statue was – the staff had not even heard of him, and of course there was no statue! For the Brazilian visitor, the context was 'Britain's global role in bringing an alternative dialogue between food production and environmental conservation, which is more than urgent to preserve human life on this planet' (p. 197) The point referred to here is that organic farming actually arose in an imperial setting – Howard spent most of his career in India, and the Institute in which he worked was set up by Curzon – and is 'part of a long history of environmental reforms initiated within the British Empire.'

The book is structured around Howard's life and career within the context of the agricultural development of the time, explaining the 19th-century background with the establishment of Rothamsted as an experimental research station as early as 1843. The environmental movement as a whole sits within holism and has much in common with the American transcendentalist attitude to nature; also with wider historical agrarianism, which the author covers in detail going back as far as Livy and including Thomas Jefferson, the Romantics, Gilbert White, William Cobbett and other less well-known figures. The advent of processed food raised questions about the relationship between agriculture and health, an ongoing debate within the organic movement. The author discusses biodynamics, with which he has little sympathy, commenting that biodynamic farmers rely on Howard's methods as the base of operations for the farm. He also gives space to German biological farming, and it is significant that the word used in French for organic is also *biologique* – marking a clear contrast with modern chemical agriculture.

In describing Howard's education and career, the author comments that AE Housman and JRR Tolkien also grew up in Shropshire. He and both his wives were educated at Cambridge, and Louise even worked as Director of Studies in classics at Newnham College between 1909 and 1916. Howard and Gabrielle's output at Pusa between 1905 and 1923 was prodigious, amounting to 93 reports, articles or books on agriculture in India, so it is not

surprising that they had little time or inclination for social life. They then worked at their own research station at Indore between 1924 and 1931, and it was here that Howard developed his famous Indore humus method, which was not in fact his invention but built on earlier work and responded to the economic needs of the locality. It was only later that he began to link the problem of depleted soil to plant and human health. The main point of the next chapter is an important one as it disposes of the assumption that organic farming and in particular the Indore Method originated in peasant wisdom, a view that was actually incorrectly promoted by Louise (p. 90). The author argues that this in fact obscures the startling originality of Howard's work, and traces the origins of the modern organic farming movement to 'the marriage of the Indore Method developed by Albert Howard in India with romantic, ecological and neo-traditional approaches to agriculture' (p. 104).

Howard was very active with Louise throughout the 1930s and 40s up to his death in 1947. He published his definitive work *An Agricultural Testament* in 1940, and collaborated with Sir Robert McCarrison, who had also worked in India researching the Hunza diet. Modern intensive methods were in the ascendant during the 1940s, and Howard found himself out of favour in conventional circles although his influence in other areas including gardening and medicine was enhanced. The author discusses the influence of the Howards around the world, including Japan, South Africa and the US with Jerome Rodale. Perhaps his most original contribution is highlighting the extraordinary role played by Louise Howard in the environmental movement with her regular newsletters. Significantly, she signalled growing alarm about DDT and wildlife in advance of Rachel Carson, and also highlighted the dangers of pesticides in food and hormones in meat. The author contends that Louise's work as an organiser, intellectual and activist make her not only a leading figure connecting past ideas of wholeness to scientific narratives,

but that she was 'one of the single most influential women in the global environmental movement' – and the book certainly makes the case for this statement.

British readers might find the coverage of organic agriculture in the UK somewhat sparse, and there is only a passing reference to the work of the Prince of Wales in this respect. However, the book's strength lies in its description of the work of the Howards and its global influence. In his conclusion, the author reflects that the environmental need for organic farming is likely to drive its expansion, and in this respect he could have mentioned the 2013 report by the FAO on sustainability, and also other agro-ecological initiatives – the word agro-ecology does not even appear in the index. He is surely right, though, to emphasise the cultural significance of the organic movement as a response to industry pressure on science and scientists in terms of trust, and the need to speak to the heart as well as the head and to incorporate cultural and spiritual values.

## MONOGEISM

David Lorimer

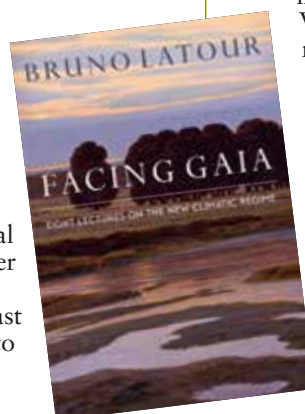
### ■ FACING GAIA

Bruno Latour

Polity, 2017, 327 pp., £18.99, p/b  
ISBN 978-0-745-684345

This dense and erudite book is an elaboration of the Gifford Lectures on natural religion delivered at the University of Edinburgh. Bruno Latour may be an unfamiliar name to readers – he is a leading sociologist and anthropologist who now holds a chair at Sciences Po, where he is director of its medialab. The term

'monogeism' was coined by the German philosopher Peter Sloterdijk as a reminder that there is no spare planet, and historically reflecting the influence of monotheism in Western culture. The title itself represents Gaia as a force in the new unstable climatic regime representing the Anthropocene. It is ironic that the advent of this term representing a new and implicitly managerial relationship to Nature has emerged precisely when its processes are becoming more unstable and chaotic with all that implies for human life. We are aware





that a generalised European standard of living requires three planets and four for the US, but the present economic ideology of growth brings us nearer to the reality of limits. Earth Overshoot Day this year was August 1 – the date when we have used more from Nature than it can regenerate in a year, meaning that we are currently using 1.7 planets – i.e. drawing down our capital.

Latour understands Gaia in various dimensions – medical, scientific, political and religious. He clears up quite a few misunderstandings of the concept by critics, who often attribute to it features that Lovelock and Margulis explicitly repudiate. There is of course a limit to the metaphor but the main point is that it goes beyond environmental determinism to propose an interactive and evolving system where self-regulation emerges from evolution without any overall plan or foresight. From a theological angle, Latour discusses ecological apocalypse or the end times and the way that people react in denial, whereas for the author, ‘there is no longer any doubt that the end time has actually come about’ (p. 196). Evasion can take the form of hope, but this kind of hope can be the enemy of action. This is a repeated pattern in environmental books ending with an apocalyptic final chapter with the proviso that there is hope if we change our ways. So at the very least, this kind of hope is provisional, and is the enemy of action if none is taken. For the author, ‘the apocalypse is a call to be rational at last, to have one’s feet on the ground’ and to stop conciliating the adherents of pacification in favour of further deferral, sometimes in the name of science. The precautionary principle in ecology has none of the political force that it has in defence matters, although both entail an attitude of responsibility. Latour further points out that we collectively choose what we are sensitive to and what demands a quick reaction – the long emergency of the Earth has so far mobilised only activists.

One of the most interesting chapters on convening the various peoples of nature begins with an instructive comparison between the cover of *Nature* magazine announcing the Anthropocene with the cover of Hobbes’ *Leviathan* who dominates a vast landscape foreshadowing the need for supranational authority in environmental matters. Latour develops a number of contrasts in

instructive charts, distinguishing between epistemological and anthropological approaches to God, the Earth and ordering principles. For many, the ordering God has been replaced by the laws of nature, although both approaches are more transcendent than immanent. This is further developed into two distinctive forms of science and the same for religion, showing that no single definition can apply to either. Hence the importance of framing, for instance in asserting the primacy of ecology over economics, as in the extensive work by Lester Brown reviewed in these pages.

There is a big difference between the world of Columbus in 1492 and the Earth Summit of 1992. There is no abundant New World to be discovered and exploited unless one takes seriously fantasies about colonising Mars, which reminds me of Dostoevsky’s short story *The Dream of the Ridiculous Man* where the protagonist arrives on an unblemished planet and proceeds to recapitulate human errors – without a change of thinking there will be no corresponding transformation of the outer world. This also suggests that the journey should embody the motto of *plus intra* rather than *plus ultra*. The new category of humans which he calls Earthbound need to explore the question of limits and identity – they belong to a delimited territory, which is the Earth itself, and need to use this as a starting point for their thinking in terms of both agency and responsibility.

## GENERAL

### A VISION FOR GLOBAL GOVERNANCE

David Lorimer

#### ■ WORLD STATE

Nicholas Hagger (SMN)

O Books, 2017, 203 pp., £19.99,  
p/b – ISBN 978-1-78099-964-7

### WORLD CONSTITUTION

Nicholas Hagger (SMN)

O Books, 2018, 87 pp.,  
£8.99, p/b  
ISBN 978-1-84694-991-3

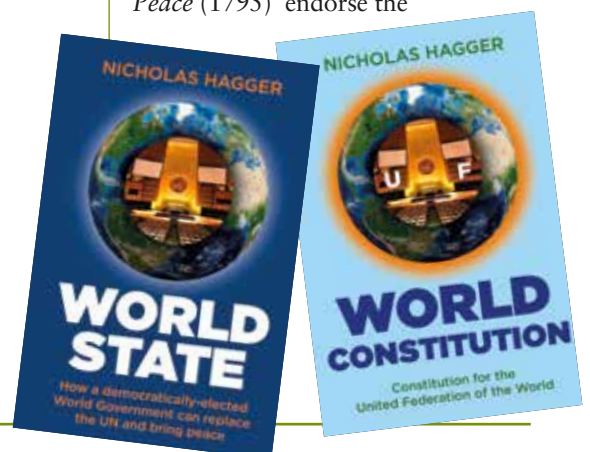
#### ■ PEACE FOR OUR TIME

Nicholas Hagger (SMN)

O Books, 2018, 282 pp.,  
£16.99, p/b  
ISBN 978-1-78535-706-0

The idea of a world state or world government has a long history, and aspirations towards this have taken various forms. In these three books, Renaissance man Nicholas Hagger follows in the footsteps of Truman, Einstein, Churchill, Eisenhower, Gandhi, Russell, Kennedy and Gorbachev in calling for ‘a democratic, partly federal World State with sufficient authority to abolish war, enforce disarmament, combat famine, disease and poverty, and solve the world’s financial and environmental problems.’ Importantly, he brings his universalist approach deriving from his own mystical experience of the One Light to bear on politics as a metaphysical underpinning.

In *World State* he begins by arguing the case for such a body which, crucially, he proposes will have ‘a partly federal, partly supranational structure that will allow nation states to be internally independent’ while running the world for the benefit of humankind and bringing peace and prosperity to all. This message is all the more important given the recent resurgence of populism and nationalism as a reaction against global elites. He outlines the historical development from tribal states to city states, feudal baronial states, nation states, colonial empires, then confederations and federations moving in the direction of a world state. I agree that the dangers of world government depend on who is doing the governing, and that such a government must be democratic with built-in safety measures to prevent abuse of power. The next chapter gives a fascinating account of historical precedents, including Dante, Sir Thomas More, Erasmus, Bacon and Kant, along with many lesser-known figures including my great-grandfather James Lorimer who published *The Institutes of the Law of Nations* in 1883. Kant is discussed in some detail, showing how his work, including *Perpetual Peace* (1795) ‘endorse the





ideal of human unity and saw a world republic of free and equal individuals as an ideal end of the progress of human history.' (p. 34) In the 20th century, this was followed up by various world federalist movements.

Nicholas moves on to attempts at imposing a world state on the known world by conquest or consent, and analyses the failure of the old order. He places the process within his stages of Universalist history evolving towards 'a worldwide civilisation that espouses liberal democracy and prioritises a supranational perspective, which he moves on to in the second part. He sets out the seven goals of a supranational authority already referred to above, then analyses seven extant models for supranational arrangement. He shows how each in turn is inadequate, mainly because they remain inter-national or inter-governmental rather than supranational, with a continuing focus on the interests of nation states or elite groups. In the process, he quotes the UN's purposes and explains its existing functions – also elaborated in an extensive set of appendices. He is well aware of the influence of dynastic families such as the Rothschilds and Rockefellers as well as the secretive processes and agendas of the Bilderberg Group proposing a hegemonic New World Order. His own model takes this into account by proposing a World Openness Committee (p. 181) that would require minutes from the meetings of such groups and representation at its meetings. Readers will be impressed by the amount of forward-looking thinking that has already taken place.

Nicholas now proposes his own ideal form for the world state, a United Federation of the World that would include an 850-strong elected World Parliamentary Assembly, a World Senate of 92 senators, a Council of Ministers with 27 members chaired by a World President or World-Lord - I found these last terms questionable in their implications, especially the second and the assumption that such a person would be a man. And it is interesting to reflect that the current UN has a Secretary-General - suggesting a form of servant leadership rather than dominating power. Nicholas explains the structure and proposed representation of these bodies in considerable detail, with an extensive

flow diagram. This certainly provides a sound basis and point of departure for future discussions. In addition, there would be a World Armed Force for policing purposes. In practical terms, a US President would have to take the initiative of proposing such a scheme, and one of its major implications would be a colossal peace dividend through the abolition of war, a proportion of which could be used for funding purposes. This of course would entail a massive restructuring of the global economy, especially in the US where the arms industry is such an economic driver. Nicholas provides figures for costs such as the War on Terror absorbing over \$2 trillion between 2001 and 2018.

Interestingly, Nicholas does not see his own world state model as an endpoint of history, predicting that it will eventually disintegrate since it is in the nature of institutions to have a limited duration. The current fundamental question is how long it will take for our collective social and political consciousness to evolve towards a consensus that such a partially federal world state is required. Many leading thinkers already agree that our current institutions are incapable of addressing systemic world problems, so it may only be a matter of time before they move to the next stage of the advocating other institutional arrangements that will necessarily parallel some of Nicholas's thinking and proposals for implementation. The appendices contain valuable data and evidence including previous confederations federations, the text of the US Declaration of Independence, the UN Declaration of Human Rights, extracts from the NATO treaty and also the Project for the New American Century from 1997 that has driven so much foreign policy since, and exploited the strategic opportunity offered by 9/11. There is an overview of the UN structure and extensive data on wars and conflicts that the UN has failed to prevent, even with 689 resolutions since 1945. Finally, there are data on freedom, regions and nation states, all of which is a tremendous resource in one book.

The book on a world constitution is a short one with a background on constitutions before proposing a detailed draft consisting of 145 articles. Its principles include acknowledging the drive towards self-improvement, self transcendence, self transformation and higher consciousness 'through which all can

attain personal inner calm, serenity and a sense of life has meaning and purpose' (p. 5). The content adds to and formalises the proposals of the first book, including structure and electoral processes. There are 35 rights and freedoms, with additional sections on equal rights and justice, rights of world citizens, and protection of rights and freedoms; there are even proposals for an emblem, flag and anthem as well as sections on signature and ratification. Appendices include 26 constitutional precedents and 204 constitutions as well as reiteration of representative allocation to the various bodies. It all makes visionary political reading.

The third book is a more personal reflection on war and peace and a Third World War, also arising out of his intelligence work described in his autobiography *My Double Life* reviewed in an earlier edition. He describes the proceedings in Athens of a group called the World Philosophical Forum and his chairing of its constitutional convention, the proposal for a Universal State of the Earth and a Supreme Council of Humanity, all of which comes across as a dry run for the plans proposed the other books. His award of the Gusi Peace Prize for Literature in 2016 (described in detail) gave him a new platform, and he offers pertinent reflections on Brexit, Trump and the appalling situation in Syria. Here he makes a connection between the relentless Russian bombing campaign and the consequent flow of refugees that has destabilised Europe, remarking that there is a danger of a proxy Third World War while also proposing a realistic and pragmatic 15-point peace plan (p. 203). The second Athens conference included a startling design proposal for a possible headquarters of a Universal State of the Earth as an immense globe, apparently designed by Russians - an intriguing fact. The appendices recap the relationship between Universalism and the world state as well as outlining the potential process for bringing it into being.

The vision outlined in these three books represents an important advance in political and constitutional thinking that must eventually manifest in our future institutions and global governance. It is a necessary historical and evolutionary process and one that deserves serious attention, particularly from a universalist metaphysical perspective that sees humankind as one and seeks the

benefit of all. Nicholas has done a great humanitarian service in articulating his world constitution and outlining his proposal for a partly federal world state that can serve as basis for future development. We should all be playing an active part in helping bring this about.

## BEYOND ISONUC

Michael Langford

### ■ GAZING AT THE STARS

Steve Minett, PhD (SMN)

Kindle Edition, 2017, 210 p £0.99  
(E-book format) sold by Amazon  
Media EU S.à r.l.

Steve is a long-standing member of the Scientific and Medical Network, and he has recently written a novella that introduces an interesting set of philosophical/political/sociological ideas. [We might remember that Jean-Paul Sartre, and many other philosophers, have used fiction as a way of introducing serious philosophical themes.] The ideas relate, in the first instance, to how children should be raised in the contemporary world, and more generally, the book raises serious questions about the nature of contemporary society and politics, and what Steve sees as the malaise in which contemporary society finds itself.

At the heart of the philosophy that lies behind the book is the notion of a 'Prima' (a primal rearing institution and mutual association) in which young children would be brought up, in contrast with the nuclear family – named in the book as the 'Isonuc' – that (in theory at least) dominates the contemporary world. Typical Primas would contain around 150 people, parents and children who would live in communities in which everyone shared the duties of upbringing. To quote: "Prima would not involve any change to the macro politico-economic systems of society. Prima can be implemented in a voluntary, 'bottom-up', piece-meal way. It could spread throughout the population by excellence of example – children from Prima would be superior in every way to children raised in the traditional, isolated, nuclear family ('Isonuc' for short) – healthier, better-adjusted and more successful. Parents today are willing to move house to get their child into a better school. In the future, many will be prepared to give up the Isonuc for five years in order to guarantee a better life-history for their child."

In this notion of a Prima there is a vague analogy to the system of kibbutzim, especially in the early days of the Israeli state. Among defences of Primas is the claim that they could mirror the kind of hunter-gatherer communities that characterised homo sapiens for most of its existence, and therefore enshrined certain values, learned through long experience. Certainly, the number, up to 150, is not drawn at random. There is considerable evidence in recent anthropology and sociology, that for typical human beings, this is the size of community that can foster the strongest bonds, based on the number of people one can be truly familiar with and work with.

The novella is divided into eight chapters, each of which is subdivided into three sections. In the first – throughout the eight chapters – we follow the boyhood and early manhood of a certain Jimmy, brought up in a dysfunctional (but, arguably, not unrealistic) isonuc. Starting in 1954 we follow him until 1970 in successive episodes (all problematic and basically unhappy) from an early attempt to run away from home, his first day at school, his first encounters with girls and his entry and exit from first year university. In each case the episode in Jimmy's life is followed by a section that is basically reflective and philosophical, commenting on the implications of the episode in the light of the theory of Prima as an antidote to many of society's ills. A third section follows, in which an alternative 'Jimmy', brought up in a well run Prima (up to the end of primary school), has episodes that – in a way parallel those of the first Jimmy – but all with positive and creative outcomes, rooted – in each case – within the consequences of have having been raised in a Prima.

On the positive side, there is certainly a lot wrong with contemporary society, and creative suggestions for how to change it are to be welcomed. Moreover, the idea that groups of people might decide to form Primas, at least during the period in which they have young children, is certainly well worth exploring, although I suspect that in order to get the first one off the ground one would either need a wealthy patron, or – better still – a small group of highly motivated and efficient men and women with entrepreneurial and management skills, who shared a common vision.

I also have some more critical comments. The novella succeeds in making a striking contrast because a very dysfunctional isonuc in opposition to a very well run Prima – and one has to suspect that in actual practice the differences would be less marked. There are also a number of somewhat extreme judgments. For example, in chapter eight's middle section we are referred to "social class and religion – the two great curses of human society". He adds the comment: "the very fact [is] that religious beliefs are imposed in infancy, without critical discourse and before the child has developed their own rational judgment". I agree that our system of social class is a curse, but probably less so than the curse of war and – arguably at least – the kind of capitalism that indirectly encourages it. I also think that 'bad religion' is a curse, but – even if we reject theism – if we take the likes of Durkheim on board 'religion' is a more complex phenomenon than this quotation suggests, and can be a force for good or ill.

Further, by no means all believers have been led into some version of it by indoctrination. Moreover, if either traditional parents, or those rearing children within a Prima, are not to bring up children in a vacuum, then in addition to primary moral values (and even these raise some controversial issues), they also need some introduction to great literature, poetry, music, etc. and I doubt whether any of these can avoid issues regarding fundamental world views and beliefs, including religious ones. Indoctrination, we all agree is bad – but this is really a kind of truism, and hides the way in which some 'liberals' don't recognise the dogmatic assumptions latent in (for example) their own versions of secular reductionism. There is a case for encouraging parents, or some kind of 'prima', rearing children within certain rich traditions of culture and religion, *provided that* critical thinking – including that of these cultures and traditions – is included. (Manifestly, at present this is often not the case.) This is the kind of argument that would allow aboriginal people to maintain their cultures, and if we can argue this in their case I cannot see why we cannot also defend, say, a Jewish family maintaining its ancient and rich traditions.





**David Lorimer**

*Note: many of these books are now available in downloadable electronic form*

# Books in Brief

## SCIENCE/ PHILOSOPHY OF SCIENCE

### ■ The Secret Life of Science

Jeremy J. Baumberg

Princeton 2018, 236 pp., £25, h/b.

In this brilliant, original and stimulating study, the author offers an acute and wide-ranging analysis of the state of what he calls the global scientific ecosystem consisting of interactions between people, knowledge, funding and the media translating findings into the public arena. Each area is populated by different players and stakeholders, with many competitive interfaces. The book takes the form of a survey of different parts of the system and the ways in which they mesh together. He begins by redefining scientists as either simplifiers or constructors, the first seeking to understand the components of the natural scientific system, while the second use insights to synthesise new domains. He sets out to answer a number of questions from the first chapter relating to the number and types of scientists, the filtering of news from original papers, the pecking order prestige of journals and the changing nature of conferences. Along the way he discusses motivations, chains of influence, the publish or perish culture, competition for funding and the peer review system.

Baumberg includes some fascinating statistics, for instance the increase in the number of scientists from 5 million in 2002 to 8 million in 2013, with an annual growth rate of 4%; of these, 60% are in industry. He looks at changing patterns in the award of Nobel prizes and how long it takes on average between the discovery and the prize – now about 25 years. There are 25,000 journals publishing 1 million articles a year. *Nature* receives 10,000 submissions a year and publishes 700, 42% of which are biochemistry or molecular biology (and only 10% physics). 65% of library budgets go on journal subscriptions. The author describes the evolving ecosystem of conference attendance

as well as the various ways in which science is communicated and the typical progression of academic careers. His final chapters consider the future of science and how the ecosystem might change, including rationing conference attendance, encouraging open science platforms and developing artificial intelligences to mine the web of science knowledge. The book is full of fascinating insights and analysis, making it required reading for anyone who seriously wants to understand the competitive dynamics within global science today.

### ■ Gravity

Pierre Binétruy

Oxford 2018, 245 pp., £19.99, h/b.

This is a brilliant and accessible illustrated book about gravity and gravitational waves, whose existence was only confirmed experimentally in 2016 and resulted in the award of the Nobel Prize in physics in 2017. It draws on first-hand experience with many practical insights and useful extra focuses, and encouraged me to do an experiment comparing dropping a sheet of paper and a book separately, then putting the sheet of paper on top of the book – they fall together as the book protects the paper from friction forces in the air. The author describes the history of work on gravity, ranging over physics and cosmology with more recent detail on the quest for gravitational waves. I gained a better understanding of the Big Bang in relation to the universe being infinite with a clever analogy of different scales of markings on a rope. At the end, the author speculates on the future dominance of dark energy for a new phase of inflation. The book will surely become a classic in explaining gravity in such an engaging manner, reflecting as it does the late author's stellar reputation as a science communicator.



■ **Blossoms**

Maxine F. Singer

Oxford 2018, 164 pp., £16.99, h/b.

A cutting-edge book about the genetics behind flowers in five parts, explaining what plants are and what they can do, how genes work, the timing of flowering in terms of temperature and light, the shaping of flowers and decoration in terms of colour and scent. Functionally, the flower's task is to produce seeds and in order to optimise this process, they need to attract insects or birds. Flowers are big business and seeds are also important in terms of what we eat – rice and wheat, for instance. It is clear that huge progress has been made in this field over the last 20 years, but I did notice the absence of any discussion about the role of formative principles and the dynamic approach exemplified in the science of Goethe – in other words this is largely a quantitative rather than a qualitative approach in an area where I think both are required.

■ **Causation in Science**

Yemima Ben-Menahem

Princeton 2018, 201 pp., £30, h/b.

The emphasis of this technical book is on causal constraints in science, i.e. general conceptual scaffolding and principles rather than causal relations between individual elements or events. It goes beyond the linguistic turn that challenges the notion of truth itself to discuss specific causal constraints, specifically determinism, locality, stability, symmetries, conservation laws and variation principles. Individual chapters discuss in more detail relationships between some of these terms, for instance determinism and stability, determinism and locality and symmetries and conservation laws. The first chapter looks at various approaches to causation in relation to understanding change in terms not only of what happens, but what does not happen or is theoretically excluded from happening. It becomes evident that terms are sometimes conflated, for example chance and contingency, determinism and stability - this is discussed with respect to physics. In looking at the scientific transition from teleology to causality, the author distinguishes actions that are goal-directed and analyses the philosophical problems of attributing causality in view of a universe that is causally closed – the basis of much discussion about free will. She rejects the reductionism of Jaegwon Kim, but her approach to free will is based more on lawlessness compatible with lower-level determinism. I find this kind of philosophical discussion somewhat linear and one-dimensional, as I think that complexity has transcended this level and, in addition, no account is taken of the role of the unconscious and social constraints.

■ **Music by Numbers – From Pythagoras to Schoenberg**

Eli Maor

Princeton 2018, 155 pp., £20, h/b.

This is a fascinating study of the reciprocal relationship between music and mathematics in the West. The last 150 years have seen the breakdown of structure in terms of tonality, and the author draws interesting parallels between the simultaneous emergence of Einstein's theory of relativity and Schoenberg's 12-tone system. Historically, he explains the significance of Pythagoras' discoveries of ratios and intervals and how this fed into the establishment of the well-tempered scale between octaves – a piano differs from a violin with its continuous range of sound, while a keyboard has distinctive intervals. He covers the work of Mersenne on harmony and the even less well-known Sauveur on acoustics and vibrating strings, which led to what he calls the great string debate between 1730 and 1780, which engaged many of the leading thinkers of the day: Bernoulli, Euler, D'Alembert and Lagrange. The problem was how the initial triangular shape of the plucked string can evolve into multiple smooth sine waves piled on top of each other. Another chapter is devoted to musical gadgets, for instance the tuning fork invented in 1711 and the metronome in 1814. The final chapter discusses string theory, bringing one at least metaphorically back to Pythagoras.

■ **The Archetype of the Number and its Reflections in Contemporary Cosmology**

Alain Negre

Chiron Publications 2018, 202 pp., no price given.

This book is an interesting journey through what the author calls psychophysical rhythmic configurations, using the work of Jung and Pauli as a starting point and seeking to reconfigure the *unus mundus* in our times. This is a useful exercise as we begin to rediscover the qualitative in addition to the quantitative aspects of number as well as a deeper understanding of the creative imagination. Number is seen as the most basic element of order in the human mind, allied to imagination in scientific work. Astrological cosmology projects archetypes onto the sky and here we have 3x4 in the Zodiac. However, one must begin with one and the way in which it becomes two, then two becomes three, and three achieves wholeness in four. These transitions are explored in terms of psychological functions, theology and physics. Then there is a chapter on quaternary rhythm in cosmological events, also bringing in the four causes

of Aristotle and the four steps in the alchemical process. Ternary rhythms are explained in detail within the Zodiac before chapters on squaring the circle and the union of opposites, along with the fourfold reflection in the universe. This last chapter entails mirroring, the participatory approach of Wheeler and the significance of the Uroboros. Here the observer or consciousness once more becomes integral in the model, and this book charts many of the interfaces between psychology, astrology, cosmology and physics. Jung and Pauli would certainly want to have read it.

■ **Pilgrimages to Emptiness**

Shantena Augusto Sabbadini

Pari Publishing 2018, 282 pp., £9.99, p/b.

I met the author at a recent conference in Italy, where he presented a fascinating lecture on the I Ching. In the 1990s, he was scientific consultant to the Eranos Foundation, having previously worked as a theoretical physicist – he is now director of the Pari Center in Italy, in succession to the late David Peat. In this book, subtitled 'rethinking reality through quantum physics', he explores the essential unity of mind and matter in a series of clear and informative expositions of various topics, covering the quantum revolution, chaos and order, the nature of life, being and becoming, space and time. Then the last two chapters move into the Dao, drawing parallels between the scientific and mystical world views, while going beyond the fashionable ideology of materialism.

Although he is aware of dominant global trends moving us in a damaging direction, he also perceives processes seeking to recover oneness, including not only mind and matter, but also human beings and nature, consciousness and the world. In this respect, he reminds us that the primary fact of our life is conscious experience and that subject and object are best conceived as complementary co-emergent aspects of a single process. The author's explorations of the Dao are profound in exploring paradox, where he also brings in surrealist art with the image by Magritte – *ceci n'est pas une pipe* - reminding us that naming is an abstraction. A subtle, informative and lucid book.

## MEDICINE-HEALTH

### ■ The Telomere Miracle

Ed Park MD

Hay House 2018, 321 pp., \$25.99, h/b.

Elizabeth Blackburn, Carol Greider and Jack Szoshow shared the 2009 Nobel Prize for Medicine or Physiology for their discovery that chromosomes are protected by telomeres and by the enzyme telomerase - this forms the basis of this popular book, the basic thesis of which is that the decreasing length of telomeres at each end of the chromosome is the basic mechanism of ageing and disease. The implication is that our body has the necessary tools to reverse this process, and here the author focuses on six critical functions: breathing, mindset, sleep, exercise, diet and supplements, which he calls TeloMirror Tools. The book begins with a clear explanation of the role of telomere shortening in stem cells as illustrated in a number of scientific studies. He then introduces the basics of genetics and cell biology advancing his telomere stem cell theory of ageing - that the health of your stem cells equals the health of your cells and organs - which he thinks will eventually be accepted by the medical profession at large.

The practical chapters contain both clear theoretical explanations and guidelines. Most of what he says is well-known from their respective fields, and only the chapter on the mind is not strictly physiological. Here he recommends the practice of gratitude and stresses the importance of a positive mindset. He recommends six complete cycles of sleep. I was somewhat sceptical of his view that obesity is the result of the ageing of cells, especially when applied to primary school children, although most of the chapter seemed to me based on sound principles, including the importance of glycaemic index and the recommendation of the Mediterranean diet. However, he warns of confounding variables in this area, as it is hard to identify any straight cause-and-effect relationship. The only supplement he recommends is TA-65 as an extract from a Chinese herb, but a brief Google on his site indicates that this costs \$600 for 250 units (!) - it is the only supplement that he himself has been taking since 2007, apparently with very beneficial results. However, it is always possible to follow the rest of the advice without expensive supplements. The last part contains a recapitulation of the roadmap. Website: [www.rechargebiomedical.com](http://www.rechargebiomedical.com).

### ■ Buddha and Einstein Walk into a Bar

Guy Joseph Hale

New Page Books 2018, 220 pp., \$15.99, p/b.

If you find this title obscure, then the subtitle is much more illuminating: 'how new discoveries about mind, body and energy can help increase your longevity'. The contexts set at the beginning of the book not only include the Buddha and Einstein, but also Alexander the Great, Darwin, Lincoln and Nelson Mandela. They stand respectively for self-knowledge, imagination, potential, wisdom, service and responsibility. The novel angle of the book is sensing how long we can live - in the case of the author, 102 - and then seeing how one can best achieve this in terms of lifestyle, which he states is 70% of the equation, with only 30% for genetics. He describes his own path before covering background in cosmology, superstrings, neural plasticity and epigenetics. He then looks at the optimal duration of existence and our place in evolution - I was not convinced by his statement that we are the most advanced conduit of consciousness in the cosmos, as it seems to me that are other intelligences for more advanced than us, although in different realms.

The value of the book is practical in terms of its many useful exercises for mastering the mind and body, quite a few of which I have not seen elsewhere, for instance a focus on ring muscles. He asks how we can be the best version of ourselves at every age, how we see ourselves in the future, and gives the reader a very valuable exercise for establishing a master structure in one's life that can be used as a self-management framework going forward. There is also a helpful chapter on habits and creating more happiness and meaning in life. As with many books of this kind, its value lies not just in the information but in practical application.

### ■ A Daily Dose of Women's Wisdom

Dr Christiane Northrup

Hay House 2018, no pagination, £10.99, p/b.

The author is very well known for her work with holistic women's health, about which she has written extensively. Here she distils her encouraging wisdom into short bytes of practical advice, so the book can be opened profitably at any page. Here are a couple of examples: 'at midlife more than at any other time, you have a renewed opportunity to reinvent yourself and fuel your life from Spirit;' and 'your task isn't to kill the messenger of your illness by ignoring it, complaining about

it, or simply suppressing your symptoms. Your task is to examine your life with compassion and honesty so as to identify the places that are crying out for love, acceptance, harmony and fulfilment. Your body is nothing but a field of ideas, so make sure that those ideas represent your best interests.'

## PHILOSOPHY-SPIRITUALITY

### ■ Illuminating Silence

Master Sheng-yen and Dr John H Crook (late SMN)

Watkins 2018 (2002), 197 pp., £12.99, p/b.

This book based on Chinese Zen retreats in Wales organised by my late friend John Crook is an absolute gem in terms of valuable spiritual content and insightful commentary. There is a brief autobiography of Master Sheng-yen, followed by transcriptions from two sessions with original Dharma discourses - interventions during retreats, beginning with an explanation of basic guiding principles in the morning, and ending with commentary on a profound poem called *Calming the Mind* by Wang Ming from the sixth century CE. The first stanza sets the tone:

*Too much knowledge leads to overactivity;*

*Better to calm the mind,*

*The more you consider, the greater the loss;*

*Better to unify the mind.*

Here already is profound food for thought, although this is emphatically not the point as Zen is all about the management of the mind and attention as well as training the will in the course of a gruelling schedule while also allowing compassion to arise. The quality of wisdom is palpable and the book contains many simple gems that the reader can apply in daily life such as (p. 79) regulate the body, regulate the breath, regulate the mind. I also appreciated John's personal account of various retreats he attended and the humility that comes across in a process involving both struggle and surrender. I also remember with affection his wry sense of humour and appreciation for life.

## ■ Ten Tales from Tibet – Cultivating Compassion

Lama Lhakpa Yeshe

Leaping Hare Press 2018, 76 pp., £8.99, h/b.

With stunning photos by Matthieu Ricard and an introduction by Satish Kumar, this is a real gem of a book with memorable parables illustrating the centrality of compassion in Tibetan Buddhism. The author's story is also instructive as a lesson in patience and commitment. The tales imprint themselves on the memory with their simple and vivid imagery such as black and white pebbles for negative and positive thoughts, the translation of the necessity of shoes on rough paths into donning shoes of compassion, and a lesson on the priority of the inner over the outer temple. Then there is the tale of two beggars, one full of demands and the other humble and grateful, whose life turns out miraculously – but then the outer reflects the inner. Another illustrates the power of devotion, belief and positive intention. These are stories to reflect on and live out.

## ■ The Heartfulness Way

Kamlesh D. Patel and Joshua Pollock

Westland 2018, 195 pp., R299, p/b.

The heartfulness way is one of meditation, cleaning and prayer – this book explains its principles in an informal conversational manner with the current guru of the lineage and a younger practitioner with 15 years of experience. The overall journey is one from selfishness to selflessness, from the reactive mind to responsive heart, from imprisonment in the folds of ego to freedom from ego, from contraction to expansion, from restlessness to peace, from darkness to light – all through a specific practice of meditation. There is a useful quadrant with one axis as focused/unfocused and the other as effort/effortless – meditation is in the upper right quadrant of focused effortlessness while in the lower right is daydreaming, lower left frustration and upper left concentration. There is much wise advice for the spiritual seeker as well as specific instruction on the lineage techniques. The aim of 'cleaning' is freedom from patterns of thinking, emotional reactivity and behavioural tendencies - in Sanskrit *samskaras* - an important practice in our times of sensory and emotional overload. Then there is the specific prayer to be said and meditated on just before sleeping. Here I found the English translation awkward even if I understood the importance of its meaning. I myself have used a special formula every night for more than 30 years, so I know its significance. Even if one does not want to follow this particular path, the book valuably distils a lifetime of spiritual insight.

## ■ The Gate of Light

Lars Muhl

Watkins 2018, 183 pp., £12.99, h/b.

Some readers may remember reviews of previous books by to Danish musician and mystic Lars Muhl, notably *The O Manuscript* relating his initiation with The Seer at Montsegur and covering Mary Magdalene and the Grail. Here he follows up his earlier book *The Law of Light*, drawing on Essene and Gnostic traditions and his knowledge of Aramaic, as well as far memory in this respect. He explains different levels of connectedness and the importance for spiritual practice of thankfulness, patience and being present - also to the divine and our deeper self. He writes about the wisdom of the broken heart as a means of opening and surrender, remarking that 'being present means standing in the light and letting your love flow freely, knowing full well that what you will spend your life looking for is actually what you yourself need to give.'

He explains *Shm* as divine energy expressed as sound and light, also related to the Kingdom of Heaven. There is a very interesting chapter on synchronicity and resonance ('energy emanates from the same creative source and is therefore interactively connected'), followed by guidance on practical exercises and ceremonies, including breathing techniques - we can become one with the universe through conscious breathing. Lars describes his own experience of life review purgation before explaining the divine healing method of the Chariot of Fire and the importance of making ourselves available for the work of the Spirit. In this chapter, there is a beautiful a rendering of the Lord's Prayer (p. 139). The final insightful chapter on prayer and healing is followed by the Baha'i Long Healing Prayer, which is also very beautiful and powerful. This is an inspiring book to reflect on and work with.

## ■ Idleness – A Philosophical Essay

Brian O'Connor

Princeton 2018, 203 pp., £20, h/b.

Many years ago I read Bertrand Russell's essay *In Praise of Idleness*, and in the first paragraph (you can Google the PDF) he sets out his proposition that far too much work is done in the world and that immense harm is done by arguing that work is virtuous. He goes on to make the case for a four-hour day, putting the onus on culture to create interesting pursuits to fill the rest of the day – Keynes had a similar vision around the same time, but this has not (yet) materialised. This book sets out to challenge the modern

portrayal of inactivity, proposing that idle aimlessness 'may instead allow for the highest form of freedom' and is in fact a rebellious position with respect to society as a whole. He discusses the relationship between idleness, laziness, leisure, play and hedonism, devoting the bulk of the book to a historical consideration of various philosophers who have written about subject including Kant, Schlegel, Hegel, Schopenhauer, Schiller, Marx, Marcuse and Robert Louis Stevenson. He questions work as the sole source of virtue and worthiness in a world where being busy is well regarded. He follows Stevenson in arguing that idleness does not consist in doing nothing, and that the issue is what counts as meaningful activity. Here being can perhaps be prioritised over doing, although this is not an argument advanced by the author, who focuses more especially on autonomy. We each have to strike a balance in defining and living a good life.

## ■ SoulWorks

Jane Bailey Bain

O Books (John Hunt) 2018, 145 pp., £12.99, p/b.

This is a profound and practical book by an author who has applied her studies of psychology and anthropology to myths and stories. It addresses the deeper themes, passions and narratives of our lives – what she calls our soul story. It is about discovering and being who you are, designing your life path and developing an attitude of responsibility that includes the ability to respond. There are many useful exercises and practices to work with and a particularly pertinent list of 20 questions to go through, including what we feel most grateful for, when we last cried and what it was about and how we would change our lives if we knew we had one year to live. There is an exercise for formulating one's personal values both in terms of principles and feelings, and another as an encounter with our future self. There is a helpful chapter about contact in relationships and another on finding and expressing one's gift. Throughout, there is a sense of creative adventure and an encouragement towards spiritual awakening in answering the soul's call. The last paragraph is an inspiration in itself: "So live your life with passion and integrity. Know that you have a unique path to follow. Find your gift and express it wholeheartedly. Let your days be filled with energy and purpose. Yet at the same time, exist in the moment. Love what you can. Give when you can. Dance in the rain. Sing your soul song."



## ■ Spiritual Beings or Economic Tools

Peter Strother

O Books (John Hunt) 2018, 304 pp.,  
£15.99, p/b.

This book, as the title suggests, addresses the question of identity and its levels and hence the way we live. The author argues strongly for our identity as spiritual beings and our capacity to reconnect with the Source and in this way liberate ourselves from the enslavement implied by the capitalistic attention economy. It does so in a series of chapters addressing birth, separation, the collective, addiction, confronting death, faith, empowerment and the spiritual life. Each chapter contains some reflections, illustrative parables bringing the themes to life, and a more contemplative section. He is surely right that many of us are cut off from the deeper aspects of ourselves, and he shows how we can open these up and escape the distractions and manipulations of the system, also spending time in silence. It is a powerful affirmation and reminder of the primacy of the spiritual rooted in mystical activism.

## ■ Life, Death and Meaning

Edited by David Benatar

Rowman & Littlefield 2016, 472 pp.,  
\$77, p/b.

Subtitled 'key philosophical readings on the big questions', this anthology is characterised by the editor as 'analytic existentialism', a new phrase for me. This is based on the fact that big questions are more frequently addressed in the continental existentialist tradition than in the more analytical Anglo-Saxon approach typified by Gilbert Ryle and AJ Ayer. The six sections cover the meaning of life, creating people, death, immortality, suicide, optimism and pessimism. The authors of almost all agnostic or atheist and treat the questions philosophically without any reference to empirical evidence, for instance that relating to death and immortality. Hence they are dealing with postulates and their logical consequences. None of the writers on the meaning of life thinks that there is any intrinsic purpose, although some assert value or meaningfulness on a subjective or social basis. The essays on death use Epicurus as a point of departure, although one contributor takes issue with his contention that pre-vital and post-mortem nonexistence are identical, arguing that only the latter can be regarded as a deprivation. The section on immortality asks whether it would be good to live for ever – certainly not, according to Bernard Williams, who found the prospect overwhelmingly tedious (he was a brilliant lecturer and I heard him in

Cambridge 40 years ago). The discussion of suicide reprints historical contributions from David Hume and Immanuel Kant, while Arthur Schopenhauer makes an appearance as representative of pessimism. The book is aimed at philosophy students, and is engaging within its own limitations, but the uninformed reader might have no idea that such big questions can be addressed in the light of evidence from psychic and spiritual experiences, a field almost completely excluded from the Academy.

## ■ Aging Thoughtfully

Martha C. Nussbaum and Saul Levmore

Oxford 2018, 251 pp., £18.99, h/b.

Martha Nussbaum is a well-known philosopher while Saul Levmore is a former Dean of University of Chicago Law School. In this book of paired essays they consider number of topics: age and control in King Lear as power shifts between the generations, retirement policy in relation to age, ageing and friendship based partly on Cicero, questions raised by the ageing bodies, emotions associated with looking back, romance and sex beyond middle-age (including a discussion of Antony and Cleopatra), inequality, human capabilities in relation to ageing, and questions of inheritance and altruism. The writing is crisp and informed, with sufficient divergences of opinion to make interesting reading for those would like to consider these issues in a thoughtful and reflective manner. Such discussions are all the more important in the light of ageing populations and shifting social policies.

## PSYCHOLOGY- CONSCIOUSNESS STUDIES

### ■ Otherworlds

David Luke (SMN)

Muswell Hill Press 2018, 274 pp.,  
£16.95, p/b.

Subtitled 'psychedelics and exceptional human experience', this book combines fieldwork and experimentation with academic papers and reviews covering the interface between psychedelics and ESP and delineating the interdisciplinary field of parapsychopharmacology. As Dean Radin observes in his foreword, this involves blasting open the 'doors of perception', a phrase popularised by Aldous Huxley in his 1950s book describing his experiences with mescaline. Dave also discusses the relevance of Huxley's 'filter theory' of the brain as a reducing valve based on the work of Henri Bergson - recent research suggests that psychedelics inhibit the brain's default filtering process. Here he might

also have mentioned William James and arguably the originator of the theory the Oxford don FCS Schiller, whose work should be much better known. As a former President of the Parapsychological Association, Dave is well aware of the variety of exceptional human experiences and their dubious status within current science despite over 100 years of evidence and research. Nevertheless, he pushes the boundaries further in his systematic investigation of such experiences, linking them anthropologically to shamanic practices.

All this provides substantial reasons for his assertion that universe is not only stranger than we imagine, but stranger than we can imagine. One of the features of these exceptional experiences is their transformative nature. Dave is sceptical of attempts by anomalistic psychology to explain these in mundane terms, mapping their phenomenology and cartography. In this respect, he provides a number of models and approaches backed up by 40 pages of references, often cross-cited in the text. He is also cautious in his approach, commenting that self-reports have more phenomenological merit than evidential value and also pointing out that the experiences described can also occur non-psychedelic states. Overall, this volume provides a fascinating exploratory interface between psychedelics and parapsychology with far-reaching implications for consciousness research.

### ■ The Hidden Power

Brian Inglis (late SMN)

White Crow Books 2018, 312 pp.,  
£14.99, p/b.

I was looking back on earlier issues of this journal/newsletter and found my original review of this book after it first came out in 1986. Brian Inglis wrote a number of well researched books on aspects of the paranormal and here he begins with some reflections on the menace of scientism, which is still with us as an underlying philosophy 30 years later. The first part looks at the evidence for psi across a number of fields – physics, botany, ethology, biology, shamanism, history and psychical research itself. Much of this is quite well-known, including the exploits of Daniel Dunglas Home in the Victorian era. He then examines and deconstructs the main sceptical arguments: that there is no theoretical basis for psi, that psi phenomena cannot exist because they are contrary to accepted scientific laws, that the experimental evidence is fatally flawed and that historical and anecdotal evidence is best accounted for by fraud. One example is the Nobel physiologist Charles Richet – one cannot simply write off such investigators as likely to be duped or as liars.

The third part make the case against scientism, usefully identifying a number of syndromes: Festinger's syndrome illustrates cognitive dissonance and reversals of opinion, for instance in Prof John Taylor in the late 1970s who rejected his own experience on the grounds that he could find no fifth force. Scientists like Sir William Crookes were hailed for their courage investigating physical phenomena, but then written off when they published positive results. As Inglis observes in a later chapter, discrediting something by smears is not the same as disproof. Then there is Polanyi's syndrome where contradictions between a popular scientific notion and the facts of experience are explained in terms of other scientific hypotheses or simply dismissed as insignificant. Medawar's syndrome is the scientist not asking questions until they see the outline of an answer – if phenomena cannot be understood from a materialistic angle, then they should be denied or ignored. The Gregory/Mayo syndrome goes back to the 19th century and derives from the split between the natural and supernatural, the latter considered to be non-existent. Then the lid-sitters suppress and ignore contrary evidence, partly for fear of a return to what they consider superstition. More active are scientism's 'hit-men' such as CEM Hansel and James Randi, whose arguments are dismembered by Inglis. He points out that, although these are a small number, the silent majority is still responsible for maintaining 'temple psychology' effectively conditioning students to conformity or excommunication if they espouse unfashionable ideas. Well worth a re-read.

### ■ What is the Present?

Michael North

Princeton 2018, 224 pp., £24.95, h/b.

Common sense readers may be surprised to discover what a conundrum is posed by the title of this book and how many eminent thinkers have tackled it, going back to Plato and Aristotle and inevitably involving notions of time and memory. Interestingly, our best understanding is perhaps metaphorical, of which two examples are Husserl's comet tail and William James's glow worm. Aristotle began with the idea of a point on a line, which is related to the idea of punctuality, a consequence of more accurate measurement enabling the scheduling of meetings and transport. One can readily appreciate how the measurement of time tends to compress the experience of the present moment, to which a chapter is devoted, concluding that the present is an abstract concept. Then there is the matter of the historical present. The second part looks at the present in visual art, the moments captured in pictures,

especially with the advent of perspective - all this was somewhat deconstructed in modern art. The photo bypasses the eye of the artist to present a snapshot, then narrative is embodied both in stories and cinema as the discussion turns to the cinematic present - the film is the present for the viewer. The concluding chapter reviews outstanding issues, relating the here to the now, an approach that might have been supplemented by Gurdjieff's self-remembering - and it would also have been interesting to consider the present in relation to dreams. However, the interdisciplinary scope of the book is already impressive enough.

### ■ The Interbrain

Digby Tantam

Jessica Kingsley 2018, 389 pp., £25, h/b.

The author is emeritus professor of psychiatry in the University of Sheffield and the author of two books on autism. Here he explains the significance of his new idea of the interbrain as a direct embodied connection and interplay of non-verbal communication not only between humans, but also with animals; in this respect autistic subjects have little or no interbrain connection. He contrasts the interbrain with common cultural knowledge that is not embodied or experienced in the same way, even though it may drive cultural attitudes and behaviours. He illustrates the functioning of the interbrain in empathy, imitation, mirroring and emotional contagion, drawing on the history of philosophy including the work of David Hume. He explains the interbrain in action in the development of infants (e.g. facial recognition and the gaze), in altruism and crowd behaviour - also leadership and obedience. He distinguishes the interbrain from a connection based on a theory of mind, where the importance lies in the theory or narrative, not in the embodied connection.

He brings in the idea of an extended mind, but without venturing into telepathy, which can explain connections at a distance rather than in proximity - this would be a step too far out of conventional psychiatry. My own idea of empathetic resonance based on evidence that people can feel what is going on in the bodies of others close to them suggests more of an 'intermind' than an interbrain - although one could see one as an extension of the other. The discussion moves on to connections through common knowledge involving cooperation and coordination based on shared moral instincts and precepts. Here leaders and the relationship of followers can be highly significant in terms of submission and obedience, especially in defining in and out groups that can lead ultimately

to war where the other is dehumanised and even demonised in the name of a common ideology. The author's discussion of the psychology of war and terrorism is important reading for our time in the context of the chapter on connections and morality. Significantly, the connectivity provided by the Internet allows for the exchange - even contagion - of information and emotion, but not in an embodied fashion - since there is no direct interbrain connection. As we know, this can become a substitute for real-world personal interaction. The book is an important contribution to understanding our social nature and connections through common knowledge, with both positive and negative consequences. I should also mention that the body of the book is accessible to general readers, but extensive footnotes provide a more technical discussion.

### ■ The 'Other' Psychology of Julian Jaynes

Brian J. McVeigh

Imprint Academic 2018, 264 pp., £14.95, p/b.

Julian Jaynes (1920-1997) was famous for his controversial book *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, first published in 1976. It is a book praised and excoriated in equal measure with insights from neuroscience, psychology, archaeology, history, linguistics and analysis of ancient texts. This book is a sympathetic account building on his work - it is important to understand that for him consciousness stands for interiority and is linguistically generated from metaphors and mental imagery as a socio-historical development. In this sense, it is transmitted culturally and humans are characterised by a developed conscious interiority. His explanation of features of conscious interiority is extremely helpful (p. 39). Interestingly, neither McVeigh nor Wile (see below) reference the work of Iain McGilchrist on the relationship between the two hemispheres, a significant omission. McGilchrist rejects Jaynes's argument that schizophrenia involves a regression to a primitive form of mentation, especially since the evidence suggests that the condition dates only from the 18th-century (see *Madness and Modernism*, by Louis Sass, recommended to me by Iain 20 years ago). Moreover, he argues that far from a breakdown of the bicameral mind as argued by Jaynes, the phenomena of hearing voices described is actually due to a relative separation of the two hemispheres. McVeigh still follows Jaynes' argument in this respect.

He proposes the need for a cultural - historical psychology and discusses the neuro-cultural malleability of the psyche,

with specific examples from Bronze Age and China showing how linguo-conceptual and cognitive changes come about, drawing on detailed linguistic evidence. He provides extensive statistical analyses and datasets as well as useful explanations of Jaynes' terminology involving perception, superception and coception as alignment of perception and introception; also types of adaptive mentalities. The phenomenology of hearing voices is analysed exclusively as hallucinatory, as the author does not recognise the possibility of other beings communicating in this way in a manner that does not involve schizophrenia. As some readers will be aware, there is a flourishing field in psychiatry of spirit attachment, a phenomenon well-recognised in Brazil. So the idea of supernatural entities functioning in place of our inner selves may be misplaced, although each case should be examined in its context. Readers should also consult the author's excellent book *A Psychohistory of Metaphors*, reviewed in these pages in 2016.

### ■ The Jaynes Legacy

Lawrence Wile

Imprint Academic 2018, 201 pp.,  
£14.95, p/b.

This book is a more idiosyncratic approach to Jaynes by an author with degrees in physics, philosophy and medicine. The first three chapters provide a synopsis and assessment of Jaynes' book, followed by an interesting discussion of the role of Reissner's fibre in mystical cognition, although I am sceptical of the author's thesis that the great works of Taoism, Hinduism and Kabbalah 'are based on interoceptions by a few rare individuals for whom the fibre persisted into adulthood.' Here he proposes that the quantum world is real and that Reissner's fibre 'as a macroscopic quantum system allows the direct supersensory consciousness of it.' This seems to me a collapse of the supersensory into the quantum substrate, conflating what Ken Wilber calls subsistence with transcendence. However, all this is discussed with great sophistication within an overall theory that consciousness is coeternal with the initial singularity giving rise to space-time - an increasing number of thinkers are speculating along these lines. There are fascinating discussions of the relationship of Freud and Einstein and their position vis-a-vis their Jewish heritage; also of the insights of Swedenborg into the role of a fibre in his own subtle perceptions. Perhaps one of the most important points to emerge from this book is a refined understanding of historically different states of consciousness, although such work has also been pursued by Erich Neumann and Jean Gebser.

### ■ Our Minds, Our Selves

Keith Oatley

Princeton 2018, 362 pp., £24.95, h/b.

Subtitled 'a brief history of psychology', this book is both thematic and biographical in terms of people who have made significant breakthroughs in the field. The significant ideas of the first part include an understanding of the unconscious, emotions, individual differences and development. This leads on to a section on learning, language and thinking, including the work of Skinner and Chomsky as well as mental models and memory. The part on mind and brain explains mental and psychosomatic illness, the emergence of fMRI and its role in understanding the brain bases of experience, then feelings and empathy. The last two parts deal with community in terms of cooperation, love and culture, then our common humanity in imagination and stories, authority in relation to obedience and morality, creativity and grit; finally, a rather inconclusive section on consciousness and free will.

The book acknowledges the need for psychology to be integrated with other disciplines - not simply with neuroscience and biology, but also social sciences, psychiatry, linguistics, computer science and literary studies. The scope of the book is delimited by orthodox ways of thinking, so there is scarcely any mention of Jung and very little of William James. Transpersonal and humanistic psychology are completely absent - Grof, Tart, Wilber and Maslow are not even mentioned, nor is there any trace even of experimental parapsychology. However, some interesting themes are covered, including the work of Jane Goodall and experiments showing how easily an us-versus-them framework can be created, which can only be mitigated by subsequent cooperation - a lesson also for the psychology of politics.

### ■ The Origins of Happiness

Andrew E. Clark, Sarah Fleche,  
Richard Layard, Nattavudh Powdthavee  
and George Ward

Princeton 2018, 323 pp., £27.95, h/b.

Based on extensive longitudinal data in four countries, this book about the science of well-being over the life course is a significant contribution not only to psychology but also ultimately to policy-making in terms of what really matters to people. It asks what makes a happy adult and a successful child, looking at the role of income, education, work and employment, family, mental and physical health, crime, social norms and institutions. For children, the factors are family income, working parents, parenting and mental health, family conflict and schooling. Contrary to much conventional thinking, the results

show conclusively that the most important factors for happiness are relationships and mental and physical health. For children, emotional health is critical. Education and income are less important than previously thought, and indeed the effect of rising income is almost neutral as it is offset by comparisons with others even when rising. Social ethos is also very significant in terms of levels of trust, generosity, social support and freedom. Overall, life satisfaction seems to peak in the early 70s. Work comes low down in the scale of life satisfaction, a finding that can give a steer to employers to enhance the happiness of their employees; as expected, the effect of unemployment on happiness is severe.

The conclusion reinforces what many people already know, namely that we have to move beyond GDP and that the goal of governments should be to increase happiness and well-being and to reduce misery. Policymakers should refer to the key findings (p. 214) as a basis for practical measures and new policies should be monitored and assessed. In view of the importance of mental health and rising levels of mental distress among young people, it would have been useful for the book to have discussed the reasons for this as well as proposing more generally policies based on enhancing happiness. In this respect, the effect of screens on young people and the impact on their relationships could usefully have been addressed.

### ■ How Behaviour Spreads

Damon Centola

Princeton 2018, 312 pp., £27, h/b.

On the basis of original experimental research, this book about the science of complex contagions gives the lie to parallels between the diffusion of viruses and that of beneficial behaviours and innovations. It shows that the 'weak ties' involving long distance connections linking acquaintances are not sufficient to spread behaviours, but rather stronger, more closely knit and densely overlapping networks are necessary, partly because of resistance to change and social inertia. Weak ties work for the spreading of information but not of behavioural change. Here we need reinforcement from multiple sources, paralleled in a highly effective campaign to increase contraception in Korean villages - neighbours supported each other in adopting new patterns of behaviour through social reinforcement. For those who do not already know each other, homophily generates empathy between participants facilitates the process - the research examples involve the health field. It is not surprising to learn that 'the most innovative, challenging and difficult behaviours require the greatest levels of social reinforcement.' (p. 178) This has



extensive and profound implications for policy implementation or even nudges - we need to make use of strong existing ties and not simply rely on information diffusion through the Internet.

## ECOLOGY-FUTURES STUDIES

### ■ Brave New Arctic

Mark C. Serreze

Princeton 2018, £19.95, h/b.

Subtitled 'the untold story of the melting north', I was curious to see if the work of Peter Wadhams on this topic reviewed last summer was featured – it was not. I sent the author an enquiry, and he had evidently not seen this book, which covers much of the same ground – hence the story has in fact been told. However, this does not make the book any less interesting as it tells the story of the author's career as a climatologist focusing on the Arctic since the early 1980s. A fundamental question is the extent to which change can be accounted for by natural variability, which gives rise to fundamental disagreements in interpreting the data: connections and feedbacks are complex and open to a variety of interpretations. The author gives a candid account of how he was gradually persuaded of anthropogenic global warming in the Arctic and develops his theory of the Arctic death spiral on the basis that a radical transformation is underway: surface temperatures over the Arctic as a whole are rising twice as quickly compared with the rest of the globe.

Serreze gives a lucid explanation of the role of the North Atlantic Oscillation and its relationship to the Arctic Oscillation in terms of air flows, eventually concluding that these effects were superimposed on more general warming expressed as Arctic amplification, as predicted by climate models. His illustrations and charts document the disappearance of ice both at the pole and in glaciers. The warming effects can also be seen in terms of shrub cover and the increased prevalence of rain on ice leading to widespread deaths among migrating deer. By the end of 2012, the human fingerprint in the Arctic had become clear beyond all the other factors, although the picture is still very complex. Looking ahead, the author concludes that the Arctic Ocean will become free of ice in late summer – the only question is when (feedback loops make this less predictable). At this point one might have expected him to recommend a more activist stance, but he remains the cautious scientist eager to discover more while emphasising the importance of his research area. In this respect, Wadhams is much more radical, recommending immediate mitigating action as described in his article in Issue 124.

### ■ Climate Justice and Geoengineering

Edited by Christopher J. Preston

Rowman & Littlefield 2018, 209 pp., \$24.95, p/b.

This new volume makes interesting reading as a follow-up to my review of *Experiment Earth* in Issue 123 (p. 53-54). It also cites the 2006 paper by Paul Crutzen and the significance of the 2009 report issued by the Royal Society. Once again, all the papers are written as if nothing is actually going on in terms of implementation, as amply documented on the Geoengineering Watch website. Many of the papers call for further research, but with every year that passes without significant action on carbon emissions, the prospect of geo-engineering through solar radiation management (SRM) through stratospheric sulphate injection (SSI) looms larger, in addition to adaptation, mitigation and carbon dioxide removal (CDR) as part of a larger strategy. As I pointed out in my earlier review, much of the thinking and even the term geo-engineering reflects a linear approach rather than one incorporating complex and unpredictable feedback loops. In addition, there are significant dangers once this process is adopted on a large scale, as cessation would involve significant temperature increases.

Geo-engineering represents a ratcheting up of human intervention in nature, which the essay by Duncan McLaren illuminates with his distinction between the three approaches of Prometheans relying on free market mechanisms, eco-modernists with reformist approaches and green radicals whose attitude is precautionary and much more ethically grounded. This is important, as the title of the book refers to justice and the subtitle is 'ethics and policy in the atmospheric Anthropocene' - a term coined by Paul Crutzen. The editor points out that any solution to the climate change problem is going to be non-ideal from an ethical perspective, which provides the overall framework to the book in considering climate engineering in relation to other available options. The Royal Society report referred to geo-engineering as a Plan B, but further reflection puts it far further down the list and distinguishes between tools and plans. An important theme is the relative impact of climate change, also in relation to food and water security. In this respect, it is astonishing that there is no reference to population growth, even in Africa, where this is set to double by 2050. Having said this, the volume is still an important contribution to reflecting on the ethical and policy dimensions of the geo-engineering option.

### ■ The Infinite Desire for Growth

Daniel Cohen

Princeton 2018, 165 pp., £20, h/b.

The author is Director of the Economics Department at the Ecole Normale Supérieure in Paris, so this book has been translated from French. As such, it draws on French as well as English and US sources, something one rarely finds the other way round. It is a stimulating book of wide scope drawing on a range of disciplines. He starts from the premise that economic growth and the hope of better things to come embodied in the Enlightenment idea of progress is the religion of the modern world. He then traces our history and key turning points in our development including agriculture, persisting hierarchies, the invention of money, the industrial and scientific revolutions, and the emergence of autonomy and free expression. Along the way, he contrasts Western with contemporary Chinese empires, observing that Western powers were in a state of permanent war and rivalry in building empires and exploiting resources. Our economic development has permitted a population explosion, but we are in the process of going through a demographic transition to stable levels thanks to the education of women and influential examples widely seen on TV.

Questions around labour, productivity, automation and wages are very current, especially since 2008. Here the author takes a rather longer view, showing how middle-class incomes have been stagnating over the last 40 years, and pointing out that growth may be underestimated due to the widespread provision of free services over the Internet. Ecologically, we have entered the Anthropocene era but still with our old mentality of separate nation states and their interests. The author takes the view, which I share, that humanity is not yet up to the task of solving global ecological issues and that sufficiently far-reaching collective action is unlikely solely through evoking risks to the planet. We therefore need to rethink progress and look for successful social models such as Denmark. The key issue here is what the author calls the extraordinary malleability of human desire in the light of the Easterlin paradox: first, that wealth does not correlate well with happiness, and secondly, that while a higher salary is obviously desirable, 'yet once we have reached that target, it is never enough' due to habituation and comparing ourselves with others. Our needs are relative, and we don't want to fall behind our neighbours. Moreover, even while the planet strains under the collective human impact, millions more people aspire to Western lifestyles, for which we would need the resources of four planets.

In view of this situation, one has to ask how likely it is that the author's desirable recommendation of a transition from quantity to quality will occur. This is all very well in advanced countries, but even here people are unwilling to give up what they already have. However, there is increasing support for moves away from GDP towards a focus on well-being. He thinks that attitudes are transformed 'when individual aspirations and social needs converge towards the same goal' (p. 152), which entails a new sense of community and solidarity, moving from individual and social levels to that of the species and the planet. Ecological thinkers have already arrived there, but most economists and politicians lag behind - hence the race between education and catastrophe. This book is a thoughtful wake-up call that helpfully contributes to our education and potential transformation.

### ■ Between Debt and the Devil

Adair Turner

Princeton 2016, 314 pp., £13.99, p/b.

Adair Turner was a scholar of Gonville and Caius College and President of the Union when I was at Cambridge 40 years ago. Now in the House of Lords, he has held many distinguished positions and became chairman of the UK Financial Services Authority only a week before the crash in 2008. In this brilliant and penetrating analysis he discusses the factors leading up to the 2008 crisis, citing an incident when the Queen visited the Economics Department at the London School of Economics in the spring of 2009 and asked why no one saw the crisis coming. Turner admits frankly that he was one of these, and would have made the same errors if he had had a policy role before the crisis. Subsequently, he played a major role in global financial reform, and this book sets out his radical assessment and proposals.

One of his central and most interesting ideas is that 'modern financial systems left to themselves inevitably create debt in excessive quantities, and in particular debt that does not fund capital investment but rather the purchase of already existing assets, above all real estate.' (p. 4) He observes that 50% of total wealth is held in mostly urban real estate. The aftermath of the crisis is what he calls the debt overhang trap, explaining why much of the private debt has been shifted to public debt and why the recovery has been so slow as overleveraged individuals try to cut their levels of debt with a consequent dampening effect on aggregate consumer demand. An underlying problem is that the creation of credit (by banks) has hitherto been correlated with continuing economic growth demanded by the system. Turner sees the need to regulate this creation

of credit, and devotes a section to this, also observing that markets - especially financial ones - can never be perfect.

This leads to his fundamental analysis of the shortcomings of current economics in terms of its assumptions. Just as socialist planned economies mistakenly assumed rational consumers and predictable expectations on a linear mechanistic basis, so modern economists with their sophisticated mathematical models make the same error - literally a fatal conceit in the light of inherent reducible uncertainty. He shows how economic ideas influence practical policy choices and exposes their methodological and philosophical bias: 'a preference for mathematical precision and elegance at the expense of realism' - i.e. the complexities of the real world. (p. 242) He wryly observes that 'you cannot see the crisis coming if you have theories and models that assume that the crisis is impossible.' In the real world, 'optimal policy inevitably involves a choice between alternative imperfections and alternative dangers' - hence the title of the book. In the afterword for the paperback edition, Turner discusses failed orthodoxy and the populist reaction: rising prosperity has not been evenly distributed - indeed, inequality has been exacerbated, and he sees action on this front as politically imperative, especially in the light of 'jobless growth' and disproportionate rewards going to the few. He also advocates a role for governments in terms of limited central bank money creation as one way of remedying a chronic deficiency of aggregate demand. The book is brimming with new ideas, and space enables me to mention only a few. If you only read one book on the 2008 financial crisis and its aftermath, this should be it.

### ■ Quantum Economics

Amit Goswami

Square One Publishers 2015, 306 pp., \$17.95, p/b.

Amit Goswami is best known for his idealist interpretation of quantum mechanics. Here he turns his informed attention on the implications of his view of quantum physics for economics, mainly with a US political focus. He calls this a consciousness-based economics of holism that goes beyond the scientific materialism underlying current economic theory - consciousness becomes fundamental rather than matter, and we have a science within consciousness. He shows how Adam Smith's ideas have been modified by scientific materialism to place an emphasis on mathematical models, and how it has also influenced health systems by prioritising an allopathic approach with a dismissive attitude towards complementary and alternative medicine - due in large part to the power of Big

Pharma. An important implication of a consciousness-based approach is the creative causal power of thought widely denied by current theories, in spite of evidence from placebo and contemplative neuroscience, although things are beginning to shift in this respect.

Goswami brings in the idea of subtle and vital energies as well as the search for meaning, showing how addressing the underlying issues of well-being can also drive the economy on a more sustainable basis, although I was not entirely convinced by his argument that this could resolve the boom and bust cycle. It is interesting to speculate on total annual global expenditure on yoga, spirituality and holistic health, all of which reflects the development of an interest in subtle and vital energy. Goswami is equally critical of supply-side and demand-led economics espoused by Republicans and Democrats respectively. He sees evidence of shifting cultural patterns with the 'consciousness revolution' moving up Maslow's hierarchy of needs, but the question is how potent this force is in relation to rising material demand from middle classes in such countries as Brazil, India and China.

In the latter part of the book, Goswami looks at changes already going on in the direction of his analysis, which makes encouraging reading as we seek to meet people's higher needs in terms of real quality of life. The advance guard is represented by the 'cultural creatives', who form an increasing proportion of the population in terms of overall worldview and are in the author's terms quantum activists open to creativity and intuition - he gives some guidance on new consumption and production patterns, including advice for business leaders. He also includes proposals for the fundamental reform of higher education and health services with their staggering costs, as well as for a more integrated psychology involving the development of human capital. This visionary book depicts a possible future social scenario, elements of which are already happening, but as yet on an insufficient scale - we have not yet undergone the worldview change he advocates based on quantum physics.

### ■ Protecting Traditional Knowledge

Edited by Daniel F Robinson, Ahmed Abdel-Latif and Pedro Roffe

Earthscan 2017, 366 pp., £120, h/b (ebook £20)

Very few readers will be aware of the existence of the World Intellectual Property Organisation (WIPO) and still less of its intergovernmental committee

on intellectual property and genetic resources, traditional knowledge and folklore that has been deliberating since 2000. This book provides the first comprehensive review of its progress and negotiations in the light of increasing concern about the misappropriation of indigenous genetic patrimony. The book is necessarily technical, introducing the process and discussing substantive issues as well as future prospects. In view of the section entitled stakeholder perspectives, it is easy to understand why little progress has been made and the limits of 'constructive ambiguity' in terms of turning the process into an outcome. The content of United Nations Declaration on the Rights of Indigenous Peoples makes encouraging reading, but one still has the sense that indigenous peoples are largely marginalised and that substantive agreement is still some way off in a situation of 'polite deadlock' characterised by hundreds of phrases still in square brackets. While the US insists on freedom of creativity and innovation to drive economic growth, countries like India would like to see their own legal approach extended, while indigenous peoples insist on stronger protection.

## DEATH AND DYING

### ■ Let Evening Come – Reflections on Ageing

Mary C. Morrison

Piatkus 2018, 130 pp., £9.99, h/b.

The author of this wise and compassionate book describes herself as 51% Episcopalian and 49% Quaker – it is a measure of her character that she only began to learn Greek at the age of 70, and this book was published when she was 87 in 1998, bringing her acclaim late in life, as related by her grandson in the introduction. The book is direct in its tone, beginning with the observation that ageing takes courage as we preside over the diminishment of our capacities and the disintegration of the physical body – where is dignity to be found? She quotes Jung as saying that "I do not live life, but life is lived in me" and we need to deepen the process of self-knowledge as we find ourselves in a new and perhaps precarious situation. The temptation is to complain and become more demanding, i.e. self-centred, but this is a sure way of putting your family off and correspondingly reducing the frequency of their visits. We have to learn to give up control as we move from a central position of responsibility within the family and begin to come to terms with paradox: failure is success, loss is gain, defeat is victory, every loss contains a gift, losing one's life is finding it (p. 9).

We have the opportunity to shift from doing to being, to feel more at home with ourselves, to reach some measure of peace. The author quotes a grandmother saying to her grandson not to expect any action: "all I have to offer is a cosy time by the fire", to which he replies "Don't underestimate cosy!" It can be a challenge to realise the nothingness and emptiness of the quiet centre within, but this can also be liberating if we can become fully present in the now, sensitive to the beauty as well as the pain of life. A difficult but rewarding journey can be from aloneness to solitude, which brings us back to being and the spiritual growth possible during this phase of life. Finally, we have to learn to say farewell as we approach death as both an end and a new beginning. We have to give up everything, ultimately the physical body having, hopefully, lived to the full in our time. This can give rise both to a sense of freedom and compassion; I was struck by her point that the dying need human contact and lots of it – touch and love, maybe even song. There is a deep and touching humanity in this book which supports the reader to begin growing into its insights and applying its guidance.

### ■ Already Here

Leo Galland MD

Hay House 2018, 140 pp., \$19.99, h/b.

With a subtitle referring to heaven along similar lines to Eben Alexander, this is a personal book of a doctor's journey into the inner realms following the death of his brain damaged son Christopher at the age of 22. Needless to say, this experience radically expands his understanding of reality. The three main themes are The Gift of the Opposite, the Gift of Presence and the Gift of Timelessness. The author gains a completely new perspective on the meaning of his son's life where his behavioural problems are seen in a new light as challenging others by confounding their assumptions and expectations. This could be profoundly disruptive, bringing people up against the limits of their patience and tolerance - including his father. He is encouraged to go of his normal understanding of time and realise that our task is to find our perfect self and embrace it rather than going through life making careful plans: 'let go of time and enter into God's moment.' The material world of matter is seen as the realm able to embody separation and otherness, which contains many spiritual lessons and allows for love. The author comes to realise that opposites always exist together, and that everything in the universe contains its opposite, even if only in potential. When it comes to Presence, the chief obstacle is the perceived pressure of time, and in this context he refers to the insights of the ferryman Vasudeva in

Hermann Hesse's novel Siddhartha – as life flows, we can enter into Presence at any moment. This is certainly a mind-expanding adventure.

### ■ The Work of the Dead

Thomas W. Laqueur

Princeton 2018, 711 pp., \$27.95, p/b.

This book is a monumental Magnum Opus covering the cultural history of how we are treated mortal remains. The four parts cover what the author calls the deep time of the dead, places, names and burning the dead. He shows in enormous but readable detail how the location changed from churchyard to cemetery, how important names are, particularly on war memorials, and how the modern practice of cremation emerged. One of the most interesting episodes relates to the death of Voltaire, who was an implacable opponent of the Church and might be refused burial in sacred ground. Fear of hell led to many deathbed repentances, and the position with Voltaire raised all the contemporary political issues with his lifetime of anticlericalism. A similar discussion of David Hume also brings in Dr Johnson. This is surely the definitive treatment of the subject, a landmark and highly readable work.

## GENERAL

### ■ Anti-Social Media

Siva Vaidyanathan

Oxford 2018, 276 pp., \$24.95, h/b.

Subtitled 'how Facebook disconnects us and undermines democracy', this is a timely and hugely informative contribution to recent debates on data and privacy. After the introduction arguing that the problem with Facebook is Facebook, the remaining seven chapters characterise its function in terms of various types of machine – pleasure machine, surveillance, attention, benevolence, protest, politics and disinformation. The author makes it clear how the original intentions were idealistic in terms of connecting people, but we are embedded in a competitive economic context where we become the products and our data is fed into a vast commercial system with 2.2 billion subscribers. This needs to be understood in the context of the attention economy, where different devices and platforms compete for our attention, which is progressively fragmented - the author likens this to snacking rather than having a proper meal. In addition, the Internet in general and Facebook in particular act as amplifiers of human trends and capacities based on eliciting an immediate emotional response rather than cultivating a culture of deliberation. One example is the



erosion of truth and trust, and the author shows how this reflects the very nature of Facebook itself: 'if you wanted to build a machine to distribute propaganda to millions of people, distract them from important issues, energise hatred and bigotry, erode social trust, undermine journalism, foster doubts about science, and engage in massive surveillance all at once, you would make something a lot like Facebook.' (p. 19)

The five most powerful digital companies in the world – Facebook, Alphabet (the holding company for Google) Microsoft, Amazon and Apple are all engaged in providing us with a 'life operating system' involving 24-hour content and capacity, effectively monitoring our activities and states of being and guiding our purchasing decisions. A good deal of attention is devoted to political issues, including the role of mobile devices in the Arab spring and meddling with national elections through psychologically targeted ads (in addition to the Russian issue, the Trump campaign was spending \$70 million a month on Facebook). The author cautions in attributing causal powers to technology, arguing rather that they serve as channels of communication reflecting prevalent social trends. In his conclusion, he shows how this kind of social connectedness has not enabled us to tackle major challenges, although petition sites have made a constructive contribution. Innovation does not in itself entail progress, especially in thinking through problems together – this means that we will have to rely on other channels, also to challenge the dominance of technology and consider how best to regulate and reform our 'information ecosystem'. Essential reflective reading.

## ■ Digital Dominance

Edited by Martin Moore and Damian Tambini

Oxford 2018, 423 pp., \$35, p/b.

This related multi-author volume reflects on the economic, social and political power of Google, Amazon, Facebook and Apple as we as a society try to come to grips with the nature of these new digital platforms and how best to regulate them. The three sections deal with economy, society and politics, beginning with a discussion of the evolution of digital dominance and the emergence of a winner-takes-all situation, which also results in a massive siphoning-off of advertising from traditional print media. The processes involve factors such as economies of scale, strong user brands and habitual usage, network effects and switching costs. Unlike traditional anti-trust situations, monopolies may not actually harm consumers, and in the case of Amazon they use predatory pricing policies to prioritise growth over profits for their

own long-term benefit. Last year, Amazon accounted for 46% of US e-commerce. Digital platforms are also growing their function as providers of news, which can exacerbate the lack of exposure to diverse points of view and reinforce confirmation bias, a theme taken up by Cass Sunstein in relation to democracy. They become gatekeepers for our news feeds and prioritise impulse over serious deliberation. One chapter suggests that the free press has been submerged within the fabric of the political and commercial surveillance economy.

The political section looks in more detail at social media power and election legitimacy with particular reference to the EU referendum and the 2016 US presidential election. Campaigns have moved increasingly online, as has advertising spending – Damian Tambini describes the generic stages of building a social media campaign in terms of audience, segmentation, message creation and testing, then the message targeting and delivery. This gives a real insight into the dynamics and the effects of targeted reminders and voting. A new avenue for me was the power of search engines to influence opinions in terms of manipulation and suggestion – 90% of searches are from the first page of Google results. Research shows that search engine manipulation can dramatically shift the opinions of people who are undecided. The same dynamics of advertising and persuasion are present, but on an unprecedented scale and frequency. The final chapter discusses platform power and responsibility in the attention economy where, as Herbert Simon warned in 1971, a wealth of information creates a poverty of attention and resulting competition for that attention. The chapter builds on Bertrand Russell's definition of power is the ability to produce intended effects, in this case 'creating addictive distractions that maximise user engagement on which revenue and profits ultimately depend.' Crucially, this privileges impulses over intentions, representing a manipulation of the will. The conclusion reinforces the unprecedented nature of digital dominance and the need to develop a more adequate theory of harm. This book and the previous one enables readers to gain a more thorough understanding of these critical emerging issues.

## ■ In the Beauty of Holiness

David Lyle Jeffrey

Wm Eerdmans 2017, 448 pp., \$49, h/b.

This lavishly illustrated book researched for over 40 years tells the fascinating story of art and the Bible in Western culture, with nearly 150 colour images. The approach is chronological, with a

break at 1500 around the Reformation. This is the point at which a disjunction of beauty and holiness occurred, illustrated with erotic depictions of David and Bathsheba as well as controversies surrounding nudes in the Sistine Chapel. These paintings also give rise to reflection on changing concepts of beauty, as also noted by Kenneth Clark in his book on the nude. Fascinatingly, there are 14 Hebrew words for beauty, while the main Greek word used in the new Testament is *kalos*, which necessarily has fewer connotations. The discussion of the paradoxical beauty of the cross leads on to beauty and proportion in buildings, then the beauty of light in stained-glass, the fashion for frescoes and the classic complex altarpieces such as the Isenheim Altar by Grunewald, which I visited in Colmar in 1978.

After 1500, there is a different spirit and attitude to faith, a chapter on romantic religion and the sublime, featuring William Wordsworth and Caspar David Friedrich, including a number of paintings I did not know. The 19th-century sees the Pre-Raphaelites and, perhaps more surprisingly, Van Gogh and Gauguin. The 20th century is represented by Munch, Picasso, Ernst and Dali. Then we move on finally to the return of the transcendentals – those whose art is underpinned by goodness, truth and beauty and here we have Rouault, Chagall and a wonderful artist called Arcabas, born in 1927 and whose paintings are all striking in their use of light. This must be the definitive study on this topic and can be highly recommended to any reader an interest in the history of sacred art.

## ■ Principled Spying – the Ethics of Secret Intelligence

Sir David Omand and Mark Phythian

Oxford 2018, 285 pp., £20, h/b.

This superb and highly informative book is a dialogue and exposition between Sir David Omand, former director of GCHQ, and Mark Phythian, a professor of politics. It probes and analyses with many historical and contemporary examples the legitimacy of secret intelligence in the light of the tension between security or protection and privacy, that between secrecy and transparency as well as the relationship between citizen and state. The discussion is all the more relevant in the light of the developments over the last few years, including the release of the Snowden material from the US NSA and the dodgy dossier justifying the Iraq war. The book succeeds in its aim of providing an ethical framework for public policy relating to the intelligence services in the new context of digital intelligence in cyberspace.

A key contribution of the book lies in extending the notion of the just war to just intelligence using the key criteria of just cause, right intention, proportionality, right authority, reasonable prospect of success, discrimination and necessity - much of this is considered in a consequentialist perspective, and all these factors are rigorously analysed. There are chapters on secret agency and covert human resources as well as on the ethics of using intelligence, which will always be ambivalent but necessary when hostile powers or individuals are secretly plotting destructive activities. Findings can improve the quality of decision-making by reducing ignorance.

There is a balanced consideration of the use of drones, in which Sir David has special expertise. The authors recommend a new social compact involving building confidence through oversight and accountability using not only legal but also ethical frameworks. This is summarised in a series of bullet points within the context of liberal societies and heralding a potentially new era in the democratic control of secret intelligence activity while having no illusions about the reality of campaigns such as that of Putin supporting Trump in the 2016 US elections - Trump's extensive business connections with Russia are extensively documented in a revealing July 22 posting from Avaaz. The book is essential reading for an informed and ethical view of intelligence that lives up to its title.

### ■ High Performance Habits

Brendon Burchard

Hay House, 2017, 393 pp., \$26.99, h/b.

I have reviewed a number of Brendon's previous books, and here he distils the results of his research and practice into six high performance habits that anyone can adopt and adapt. These are the personal habits of clarity, generating energy and raising necessity, and the personal/social habits of increasing productivity,

developing influence and demonstrating courage. In each case, he gives a series of questions and practices that can be worked through so as to define the way forward for oneself. He observes that high performers are more successful and less stressed, love challenges and are more confident, are healthy, admired, assertive, see and serve beyond their strengths, have prolific quality output, and are adaptive servant leaders.

He makes the important point about work/life balance that we should think in terms of balancing hours rather than happiness, and recommends focus on the following key factors: health, family, friends, intimate relationships, mission/work, finances, adventure, hobby, spirituality and emotion. How one feels about what one is doing is critical, as is overcoming procrastination by defining five major moves that will take you to your goal in terms of deliverables, deadlines and activities - then put these in your calendar in protected blocks so as to overcome a life of reaction and distraction. The book is full of useful and valuable advice for those who are prepared to commit to action.

### ■ Creating the Impossible

Michael Neill

Hay House 2018, 281 pp., £12.99, p/b.

Based on more than 25 years of experience, this book explains the principles and application of creative thought and is subtitled 'a 90-day programme to get your dreams out of your head and into the world.' The first part addresses making the invisible visible in terms of imagination, quoting the three principles of the Scot Sydney Banks - Divine Mind, Divine Consciousness and Divine Thought, formulated after a mystical experience in middle age. Interestingly, these correspond exactly to New Thought authors such as Thomas Troward and Charles Haanel, who in turn influenced Napoleon Hill, Earl

Nightingale and Bob Proctor - Neill does not seem to be aware of these authors writing 100 years ago. We are reminded that the creative process unfolds as we go along from the inside out and that enjoyment and engagement reinforce each other. Hence his formula for successful creation of showing up, beginning to move in a direction and responding to what shows up along the way. The book then takes the reader through a 90-day process packed with good advice and guidance - a great theoretical and practical resource.

### ■ The Essential Goethe

Edited by Matthew Bell

Princeton 2016, 1,007 pp., £22, p/b.

With an extensive and instructive introduction by the editor, this is the best available one-volume anthology of Goethe's works, spanning the full range of his output of poetry, drama, novels, literary criticism, autobiography, philosophy and science. The scope and insight of his work is extraordinary and his style eminently readable in every discipline. His science is well represented, especially on colour and morphology, and his profound understanding of transformation. Writing of an individual organism he lists its basic characteristics as: 'to divide, to unite, to merge into the universal, to abide in the particular, to transform itself, to define itself, and, as living things tend to appear under a thousand conditions, to arise and vanish, to solidify and melt, to freeze and flow, to expand and contract. Since these effects occur together, any or all may occur at the same moment. Genesis and decay, creation and destruction, birth and death, joy and pain, all are interwoven with equal effect on weight; thus even the most isolated event always presents itself as an image and metaphor for the most universal.'



San San Bay, Jamaica by David Lorimer

## ■ The Bell and the Blackbird

David Whyte

Many Rivers Press 2018, 120 pp., \$15.31, p/b from Amazon – see also [www.davidwhyte.com](http://www.davidwhyte.com)

If you are not already familiar with the poetry of David Whyte, then this new anthology is a great place to start. I heard him reciting at the State of the World Forum in 1997, and have followed his work ever since. His lyrical sensibility has resonances with his late friend John O'Donohue - both are imbued with a powerful sense of nature – moorland in particular - and a few poems are dedicated to John. There is a sense of appreciating the between-ness as well as the preciousness and transience of life with its sense of adventure.

*When everything we know has gone,  
when my heart has stopped and yours  
no longer calls to mine through the distance  
of our time together – others will live in this life  
and this love and this light that we have set in motion...*

Here is one of my favourites - Just beyond Yourself

*Just beyond  
yourself.  
It's where  
you need  
to be.*

*Half a step  
into  
self-forgetting  
and the rest  
restored  
by what  
you'll meet.*

*There is a road  
always beckoning.*

*When you see  
the two sides  
of it  
closing together  
at the far horizon  
and deep in  
the foundations  
of your own  
heart  
at exactly  
the same  
time,  
that's how  
you know  
it's the road  
you  
have  
to follow.*

*That's how  
you know  
it's where  
you  
have  
to go.*

*That's how  
you know  
you have  
to go.*

*That's  
how you know.*

*Just beyond  
yourself,  
it's  
where you  
need to be.*



## OTHER BOOKS RECEIVED

### ■ String, Straight-edge and Shadow – The Story of Geometry

Julia E. Diggins

Floris Books 2018, 147 pp., £9.99, p/b.

An excellent introductory textbook for use in schools and introducing pupils historically and practically to the principles of geometry.

### ■ The Power of Love

James van Praagh

Hay House 2018, 160 pp., £8.99, p/b.

An inspirational book about applying the energy of love across a spectrum of life experiences, also drawing on real-life practical examples, some of which demonstrate the author's capacity to contact those in the beyond. The message is perennial, but no less important for that.

### ■ Anna – The Voice of the Magdalenes

Claire Heartsong

Hay House, 2018, 385 pp., £14.99, p/b.

This esoteric channelled book vividly recreates the travels of a close group of Jesus' disciples in France and Britain from A.D. 32 to A.D. 61 and slightly beyond. It represents the feminine and Magdalene influence with its timeless message from the heart.

### ■ Why Don't Children Sit Still?

Evelien van Dort

Floris Books 2018, 99 pp., £7.99, p/b.

This superb book draws on the author's 30 years of experience as a children's physiotherapist and is essential reading for parents of young children in understanding how children learn through activity and play – movement is an essential component in developing a range of skills. The book is full of practical advice as well as answers to the kind of questions parents might like to ask.

### ■ Decadence – A Very Short Introduction

David Weir

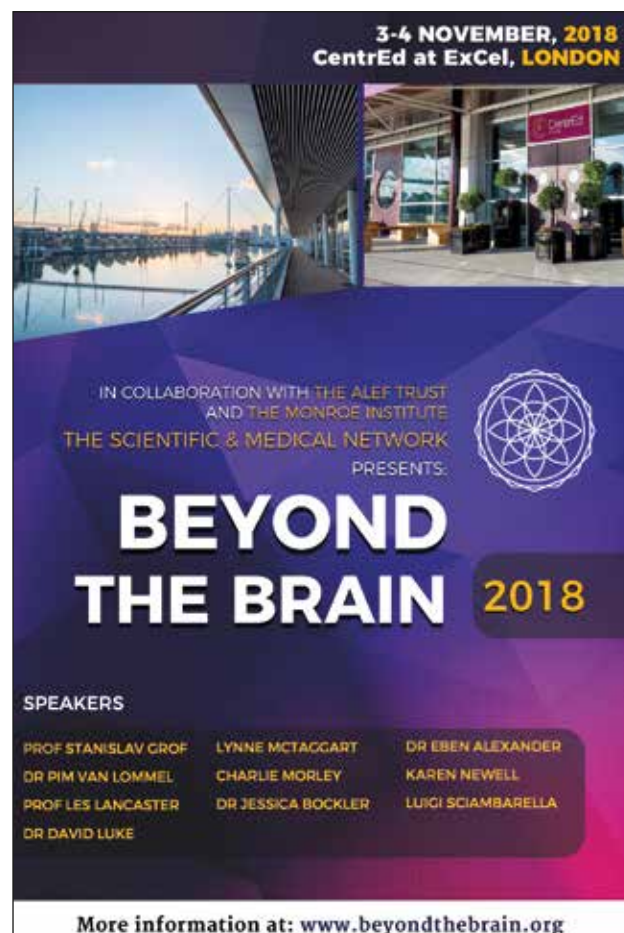
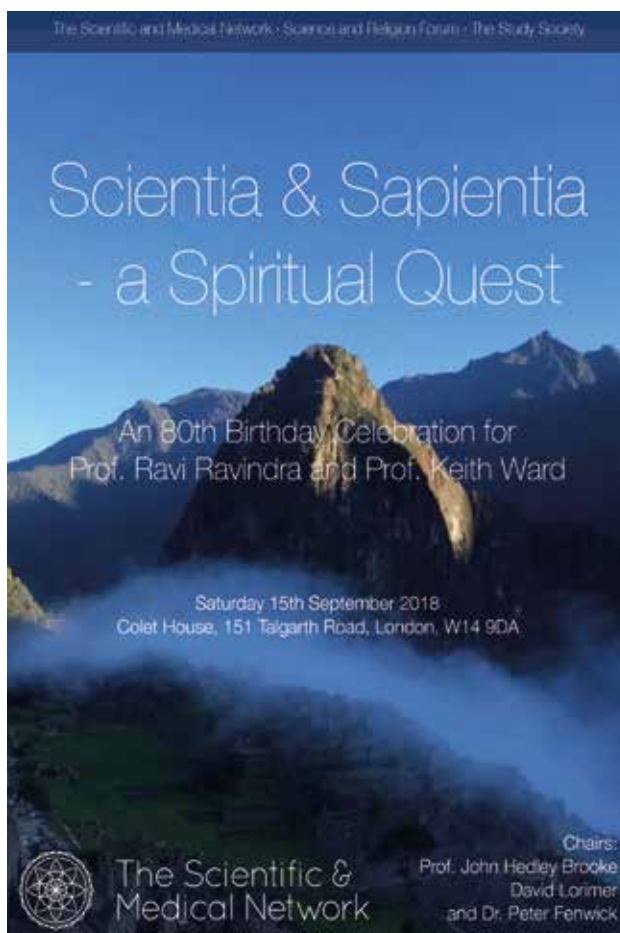
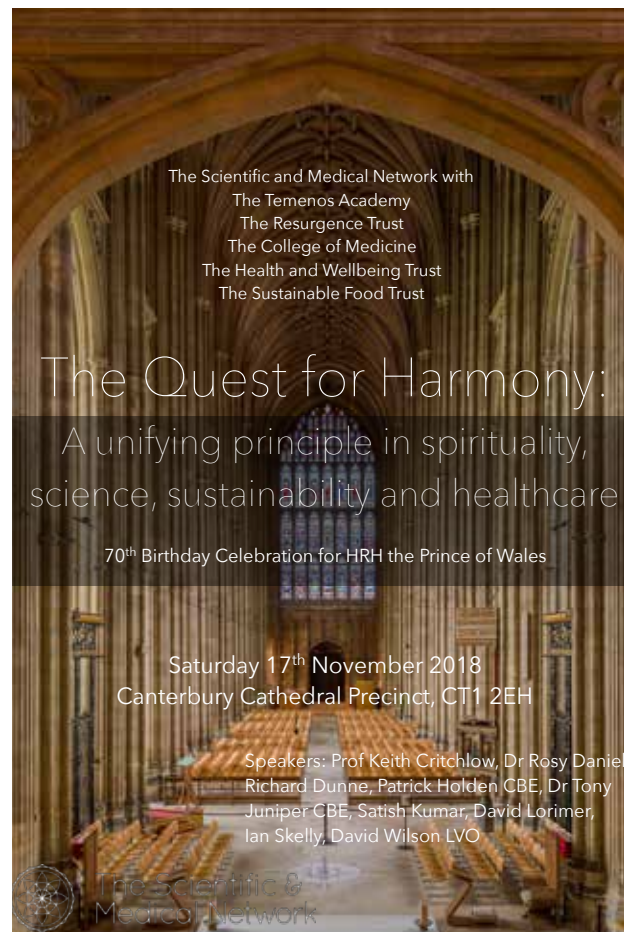
Oxford 2018, 132 pp., £7.99, p/b.

### ■ Democracy – A Very Short Introduction

Sarah Harper

Oxford 2018, 127 pp., £7.99, p/b.





The Scientific and Medical Network is a leading international forum for people engaged in creating a new worldview for the 21st century. The Network brings together scientists, doctors, psychologists, engineers, philosophers, complementary practitioners and other professionals, and has Members in more than thirty countries. The Network is a charity which was founded in 1973 and became a company limited by guarantee at the beginning of 2004.

### The Network aims to:

- *challenge the adequacy of scientific materialism as an exclusive basis for knowledge and values.*
- *provide a safe forum for the critical and open minded discussion of ideas that go beyond reductionist science.*
- *integrate intuitive insights with rational analysis.*
- *encourage a respect for Earth and Community which emphasises a spiritual and holistic approach.*

*In asking searching questions about the nature of life and the role of the human being, the Network is:*

- *Open to new observations and insights;*
- *Rigorous in evaluating evidence and ideas;*
- *Responsible in maintaining the highest scientific and ethical standards;*
- *Sensitive to a plurality of viewpoints*

### Network services

- *Network Review, published three times a year*
- *Monthly e-newsletter for members with email*
- *Promotion of contacts between leading thinkers in our fields of interest*
- *A blog discussing current and controversial topics and science, medicine and spirituality (<http://scimednet.blogspot.com>)*
- *A website with a special area for Members including discussion groups*
- *Regional groups which organise local meetings*
- *Downloadable MP3s from our conferences*

### Network Conferences

*The Network's annual programme of events includes:*

- *Three annual residential conferences (The Annual Gathering, Mystics and Scientists and Beyond the Brain alternating with The Body and Beyond)*
- *Annual residential conference in a Continental European country*
- *An open day of dialogues on a topical subject*
- *Evening lectures and specialist seminars*
- *Special Interest Group meetings on themes related to science, consciousness and spiritual traditions*
- *Student concessionary rates and some bursaries available*

### Joining the Network

*Membership of the Network is open to anyone who wishes to explore some of the most difficult questions of our time in concert with a community of like minds. Student members must be studying towards a first degree engaged in full-time study.*

### Subscription Rates

*Membership of the Networks costs £60 (with printed review). Please contact the office for further details. £36 electronic and undergraduate student membership free.*

### Membership Applications

*To request a membership application form, please contact:*

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**Email: [info@scimednet.org](mailto:info@scimednet.org)**

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