

PET neuroimaging studies that showed the blocking of activity in the Orientation Association Area (OAA) in the Posterior Superior Parietal Lobes (PSPL) during meditative experiences, in addition to increased activity in brain areas associated with attention.<sup>7</sup> The authors claimed that these sorts of findings can explain a whole range of mystical experiences in terms of a state of consciousness they call Absolute Unitary Being (AUB).

Although I find the neurobiology interesting, I would suggest that brain studies on their own cannot fully answer questions about the origins, significance and ultimately the validity of these experiences.<sup>8</sup> Whilst I'm willing to consider the possibility that there was decreased activity in my PSPL when I stared out to sea on that day, it seems to me that neuroscience is more or less impotent to answer the question of whether this strong sense of unity with nature is actually true. William James made a similar point over a century ago, when he observed that the biological origin of a state of mind on its own cannot allow us to determine whether it's true, useful or fruitful.<sup>9</sup> James suggested instead that such experiences need to be judged in terms of *immediate luminousness, philosophical reasonableness and moral helpfulness*. We also need to ask whether these experiences can contribute to a healthy life.

### The Benefits of the ENE

Firstly, it's important to establish that these experiences are not pathological. Persinger's attempts to identify mystical consciousness with epilepsy have been significantly criticised in recent years to the point that some have claimed that there is *no* credible evidence of any generalized association.<sup>10</sup>

Beyond this, it's never seemed plausible to me that these experiences are anything other than healthy. They can be distinguished from unhealthy 'highs' like alcoholic exuberance because they tend to occur in a state of deep relaxation and do not end in a reactive 'low.' Secondly, whilst cognition tends to scatter in unhealthy highs (as in the manic phase of bipolar disorder),<sup>11</sup> the situation's very different in the ENE, which carries with it a deep calm and stability similar, in my experience, to a deep meditative state.

This latter point flags a key therapeutic feature of these experiences, and of contact with natural settings in general: attention restoration. Eva Selhub and Alan Logan suggest that today many of us are suffering from Directed Attention Fatigue, partly because of the character of modern work, and partly because of the ubiquity of electronic media.<sup>12</sup> This idea stems from William James' distinction between voluntary attention, which requires effort, and involuntary attention, where one effortlessly focusses on something with intrinsic interest. Selhub and Logan note that office work tends to involve voluntary attention that requires sustained, fatiguing effort. Even worse, they suggest that our electronic media promote continuous, forced, voluntary attention, leading to stress, depression and anxiety.

Natural settings can help to reverse this trend because they provide a space to heal attention fatigue. Citing Stephen Kaplan's Attention Restoration Theory, Selhub and Logan note that immersing oneself in nature directs attention away from fatiguing voluntary attention, promotes intrinsic fascination, engages the mind significantly and finally, can fulfil a person's intentions and activities without struggle. All of these features seem directly relevant to promoting the ENE state of being.

ENEs surely need to be fostered. Firstly, as we've seen, there are demonstrable health benefits and secondly, it is through such experiences that we have a real chance of creating lasting change in our culture in the direction of sustainability and environmental protection. This is important because it seems to me that the standard ways of presenting environmental problems – from species loss to global warming – are often unflaggingly negative and rely on guilt to work. How much better, and healthier, to foster a love for the natural world via direct experience?

### A Spiritual Reality?

And finally, what is the ultimate implication of the Expansive Nature Experience? What does it say about the cosmos in which we live? For me, anyway, these experiences call into question the assertion that we are alienated individuals, living in a pointless, mechanistic Universe that is devoid of purpose. These experiences, subjectively at least, suggest that the environs of the Earth are shot through with a vitality that seems immanent within a myriad of organisms and natural processes.

As for sensing the *divine* in reality, I remain agnostic, and cannot say whether these expansive feelings truly point to the transcendental, although I respect the views of those who have reached that conclusion. I do feel sympathy with William James' thoughts at the end of *Varieties of Religious Experience*, where he suggests that mystical experience points to 'something more,' beyond the manifest world. There are times, contemplating nature, when I feel this myself, but I do not possess the confidence to say exactly what that 'something more' might ultimately be. But whatever the truth, these experiences remain of huge personal importance, and for me, at least, illuminate aspects of nature that would remain otherwise invisible.

Matthew Colborn (*D.Phil, MSc. cognitive science*). Author and consultant who has an academic background and a long-standing interest in consciousness research, transpersonal psychology and parapsychology. Currently working and writing in the health coaching field. Author of 'Pluralism and the Mind: Consciousness, worldviews and the limits of science.' (2011).

### Reference

1. Marshall, P. *Mystical Encounters with the Natural World*. Oxford: Oxford University Press, p. vii.
2. Op.cit, chapter 2.
3. Marshall, P. *Mystical Encounters with the Natural World*. Oxford: Oxford University Press, p. vii, p. 112.
4. Harding, S. (2009). *Animate Earth: Science, Intuition and Gaia*. Totnes, Devon: Green Books.
5. Hardy, A. (1979). *The Spiritual Nature of Man: A Study of Contemporary Religious Experience*. Oxford: Clarendon Press, p. 132.
6. Persinger, M. (1987). *Neurophysiological Basis of God Beliefs*. New York: Praeger.
7. d'Aquili, E. & Newberg, A.B. (1999). *The Mystical Mind: Probing the biology of Mystical Experience*. Minneapolis: Fortress Press.
8. Although I am intrigued by Iain McGilchrist's speculations about the different ways the right and left cerebral hemispheres perceive the world, described in *The Master and His Emissary* (New Haven & London: Yale University Press, 2009). Right-brain perceptions may well be relevant in these experiences.
9. James, W. (1902/1985) *The Varieties of Religious Experience*, London: Penguin.
10. Kelly, E.F., Kelly, E.W., Crabtree, A., Gauld, A., Grosso, M. & Greyson, B. (2007) *Irreducible Mind: Toward a Psychology for the 21st Century*, Lanham, MD: Rowman & Littlefield.
11. Bentall, R.P. (2003). *Madness Explained: Psychosis and Human Nature*. London: Allen Lane.
12. Selhub, E.M. & Logan, A.C. (2012). *Your Brain on Nature*. Mississauga, Ontario: John Wiley.



## Beyond the Brain X, Latimer House, August 2013

Liz Archer

*The 10th Beyond the Brain conference took as its theme Shifting Consciousness: Mind, Self and Brain in the 21st Century. This meeting was organised jointly between SMN and the Institute of Noetic Sciences, and marked the 40th anniversary of both organisations.*

The meeting opened on Friday evening with a brief video greeting from Peter Fenwick, who could not be with us because he was in Scotland celebrating his 50th wedding anniversary! Bernard Carr spoke of the overlapping aims of the SMN and IONS, and how both organisations are concerned with understanding consciousness but have taken different approaches to investigating it. Marilyn Schlitz reminded us that both SMN and IONS had emerged out of the founding of the Society for Psychical Research, and of the need to bring discernment to our investigations of consciousness. Our aim must be to find ways of changing our worldview so that we can create a world that is more just and more in balance with our environment.

David Lorimer then spoke on the subject "Prospects for a Paradigm Shift". He discussed the tension between differing views of consciousness, and how it raises questions about the nature of science, the nature of consciousness itself, and how consciousness relates to the brain. The last of these is the 'hard' problem for science today. The belief that the brain generates consciousness is a central tenet for science<sup>1</sup>, and many scientists assume that, in time, we will have a material explanation for precisely how the brain it does so. But huge changes are occurring our wider understanding of human consciousness, and David to cited Al Gore's concept of "Earth Inc." and global mind, and Anne Baring's recent book *The Dream of the Cosmos* as examples. Two sciences of consciousness appear to have emerged; firstly, consciousness within science (objective, experimental, rational, outside-in, third person); and secondly, science within consciousness (subjective, experiential, intuitive, inside-out, first person). He regards both sciences as valid but also incomplete.

David believes that understanding death is pivotal to understanding the nature of consciousness, and anomalous events such as NDEs challenge conventional thinking. 'Normal' science attempts to assimilate new data into its existing explanatory framework, and status or 'authoritative' opinion may be (mis)used within science to determine what is acceptable. Tensions can arise between 'informed' and 'uninformed' opinion, and he quoted Peter Fenwick's comment that anyone talking outside their own field ends up talking rubbish! Peer pressure and fear of rejection have become part of the politics of knowledge, and contentious areas of work, such as psi research, may prove to be career limiting. As a result, young students tend not to be exposed to this kind of material. David then raised the important question of how best we can work to engage young people, who he feels are genuinely interested in these issues.

The first speaker on the Saturday morning was **Mario Beauregard** from the University of Montréal. He took as his subject "The Elemental Psyche: a post-materialist perspective". Mario is the author of two important books on consciousness, *The Spiritual Brain* and his more recent book *Brain Wars*. He described how the metaphysical beliefs underlying classical science have impeded the development of mind sciences and the study of spirituality. The materialistic, reductionist and deterministic nature of classical science impacts our understanding of the relationship between psyche and brain. Science views experience as an electrochemical process within the brain, and asserts that the psyche cannot affect brains, bodies or the physical environment. Mario went on to describe research which he believes demonstrates the power of intention to modify neurobiological responses. His first study involved male student volunteers, who were shown erotic film clips as their brains were scanned. Under normal conditions this produced activation of the limbic system, but after mindfulness training the activity of the limbic system shut down. In another study he asked students to retrieve happy and sad memories; brain scans showed activation of serotonin in the limbic system in response to the happy memories, and reduction on recalling sad memories.

What is clear is that the brain is 'plastic', and that mental training will affect neurons, neural connections and the development of networks within the brain. Mario spoke of the remarkable power of placebo to change activity in the brain and body, and how meditation enhances attention, improves emotional regulation and the development of compassion. Neurofeedback enables us to control body functions not normally under voluntary control, and work in psycho-neuro-immunology has shown that mental activity can affect both the immune system and the control of genes. These techniques have proven benefit in the clinical setting.

Mario went on to discuss *psi* research. Since the effects shown in individual tests are small, it takes meta analyses of multiple studies to show the true magnitude of the results. Such analysis of studies of telepathy under Ganzfeld conditions<sup>2</sup> have produced statistically highly significant results (Dean Radin talked about this in more detail), and the PEAR<sup>3</sup> studies demonstrated the power of human later in the conference consciousness to alter the output of random generation machines. Other studies have shown that consciousness can interact with living systems at a distance. Most significant of all, though, are reports of NDEs and OBEs occurring while a subject is clinically 'dead'. When the heart stops, EEG activity ceases and the brain

stem reflexes disappear within 10 to 20 seconds, indicating that the brain is no longer functioning. But during OBEs and NDEs, consciousness is retained, along with sense perception, lucid thinking, memory, emotions and personal identity. Perhaps as many as 25 million people worldwide have undergone a near death experience in the past 50 years, and there are well documented, veridical accounts of OBEs occurring in the context of clinical evidence that all brain activity had ceased.

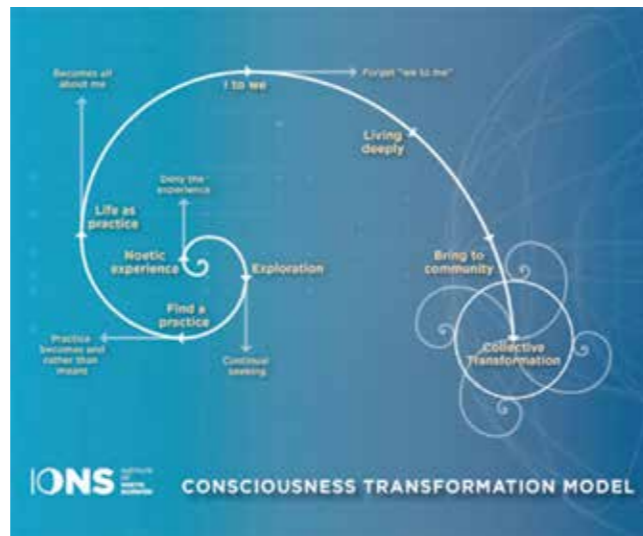
Such reports of OBEs and NDEs pose a major problem for materialist theories of consciousness and the psyche, and have provoked debates about the possibility of some kind of residual brain activity that cannot be detected by EEG. However, there is currently no means of testing this suggestion. Mario put forward as alternative explanation, which is that the psyche is primordial, along with matter, energy and space-time, and that consciousness is a prerequisite for reality. The psyche could be a fundamental force of nature which, though non physical, has the capacity to produce change in the physical world beyond the confines of the brain. He set out a “psycho-neural transduction mechanism” which could enable the psyche to act on the body via the brain, involving neuro-electrical and neuro-chemical activity that in turn affects the immune system, the autonomic nervous system and the endocrine system.

Mario proposed that the psyche and the physical world are deeply connected and interactive because they are part of one indivisible whole, and that our perception of the separation between consciousness and matter is apparent rather than real. The psyche is not *produced* by the brain and mental phenomena are not *localised* to the brain or body, though our thoughts are undoubtedly associated with neuro-chemical activity. The brain may be acting as a filter, probably allowing us to experience only a narrow portion of reality, and this process can be modified by spiritual practices or psychoactive substances. A common metaphor used to describe the psyche-brain relationship is that of a television set and the program being shown. Mario pointed out that quantum physics has already refuted classical physics and scientific materialism as the sole explanatory model, and that a post-materialist paradigm has emerged which makes scientific materialism obsolete.

The next speaker was **Marilyn Schlitz**, who is a social anthropologist, writer, educator and speaker, and who is currently ambassador for creative projects at IONS. The title of her talk was “Death Makes Life Possible: Cosmologies of the Afterlife in the 21st-Century”. She described her personal experience of an OBE during a serious accident as a teenager, and how visualisation had aided her subsequent healing. She came to understand the causal relationship between the mind and the physical world this shaped her life choices. But how does society deal with experiential observations that conflict with conventional understanding? One way is to simply ignore them, but another is to *co-opt* them, and she observed that much of the research on *psi* and experiential phenomena comes under that heading.

We are now able to access the sum total of human experience via the Internet, and can easily be overwhelmed by mass communications and social media. How do we manage complexity and, more importantly, what do we need in order to *flourish*? Much of her work at IONS has focused on facilitating the transformation of consciousness and healing. The overarching aim is to create positive transformation towards long-lasting change in ourselves and our relationships.

Marilyn commented that the literature generally regards spontaneous transformative experiences as pathological, even when positive and beneficial! IONS has developed the Noetic Transformation Model at to facilitate understanding and the process of change.



The Institute of Noetic Sciences Consciousness Transformation Model (© 2011) by Cassandra Vieten, Tina Amorok, and Marilyn Schlitz, [http://www.noetic.org/research/transformation\\_model/](http://www.noetic.org/research/transformation_model/)

The initial ‘noetic’ experience is an event which is full of significance, provokes insight and can trigger change. However, it may provoke denial instead of transformation and entrench us in our pre-existing worldview. Some of the barriers to transformation are, firstly, that the ego tends to defend against *dissonant* information. Secondly, the brain more readily learns data that confirm our pre-existing hypothesis, and we may not let in information that conflicts with it. In other words, if the new information is dissonant we may have difficulty learning it.<sup>4</sup> Thirdly, new information may provoke seeking behaviour, and continual seeking can stop us integrating the new knowledge into our worldview. It is important to find a practice which enables us to avoid the pitfalls, and the qualities of such a practice include

- *intention*, in which we set the determination to practice;
- *attention*, in which we reframe how we understand reality so that we are able to see what is there;
- *repetition*, which is necessary to establish new pathways in the brain and allow us to let go of old habits;
- *guidance*, which may take the form of a trusted teacher, book, talk, pod cast etc. that helps to guide us through the transformation process; and
- *surrender*, in which we yield our own perceptions and state of mind to what works.

In adopting a practice there is a risk that the practice becomes the end in itself rather than a means to achieving transformation. Ultimately, we come to understand that life *itself* is a practice and that we must learn to live deeply before bringing that experience to our communities. And it is here that opening to the reality of death becomes important as a way of enabling us to live life more fully. Denial of our own mortality makes us shrink from life,<sup>5</sup> but death awareness seems to increase empathy and compassion and motivates more sustainable and pro-social behaviours.<sup>6</sup>

Marilyn went on to address the question of survival of consciousness beyond death, and how noetic experiences and cultural beliefs support its reality. It is also supported by evidence from scientific investigation, including case collections, anomalous experiences around death (citing Peter Fenwick’s work), records of NDEs, OBEs and reincarnation experiences (citing Iain Stevenson’s work). Science has also indicated the existence of non local consciousness, and she referred to Alzheimer’s disease specialist Rudy Tanzi’s

‘heretical’ conclusion that memory does not reside in the brain at all! Experiments carried out at IONS showed a highly significant correlation between focussed attention by a distant participant and changes in the physiology of a recipient. She concluded by exploring how we might set up a curriculum for ‘worldview literacy’. People who are changing their minds are also changing the world, so the crucial question is, how do we change our minds so as to produce a more compassionate and pro-social world? We experience barriers to learning because of the limitations of our working model of reality, and we can choose to see things very differently. For example, Goethean science is about opening to what nature can teach us, rather than imposing our model on nature. Shamanic traditions indicate that plants can teach us how to use them beneficially, and dreams or psychoactive substances can reveal veridical knowledge to us (such as the nature of DNA). While she also celebrates science, we must always use science within the context of appropriate values and humility.

The Saturday afternoon started off with a powerful and passionate talk by **Peter Owen Jones**, Anglican vicar, broadcaster and writer. He nearly didn’t make it to the conference due to traffic on the M25, but fortunately he arrived just in time! He took as his title “The Eternal Quest for Well-being”, and started by saying that we all want to feel good, but, even though we live surrounded by images of happiness and well-being, in reality our lives are full of suffering. Capitalism was never designed to make us happy, and it sets people against each other rather than engendering contentment and cooperation. He believes that capitalism is enslaving the Western world through debt, and described modern society as “pale and one-dimensional”. Surely a tipping point is approaching, and the moment we wake up to manipulations we are subjected to will be the starting point for revolution. But the *nature* of that revolution will characterise the society that follows: we cannot build a just society on blood, nor find peace with each other until we make peace with the natural world.

Peter spoke of three grand illusions that we must negotiate if we are to find ‘truth’. The first is the *belief that we are separate*. The power of the old religions is dying, as they were predicated on the uncertainty and precariousness of life in earlier times. We are more comfortable now than ever before, and out of our increasing comfort has come an increasing interest in *spirituality* - now the biggest growth area in publishing. Our illusion of separateness leads us to destroy the natural world, contributing directly to the mass extinction of other beings and species. But we must not forget that our own well-being is intimately bound up with the well-being of all life on Earth. Instead of living in a state of war with

the natural world imagine being its guardian, nurturer and intimate. In celebrating and noticing the beauty of the natural world we notice and celebrate our own beauty. Quoting Charles Eisenstein, author of *Sacred Economics*, Peter said that every species has a gift to give to the world, and we should ask ourselves, what is our gift to give? And when we embrace our vulnerabilities we come to realise that our life is no more important than the life of any other living being.

The second great illusion is that of *ownership*, and we imagine we can ‘own’ the land, seas and animals. Ownership is a burden from which others benefit rather than ourselves, and the desire for ownership is rooted in selfishness. We could change our view and, for example, see ourselves as temporary caretakers of what we own. Christ and the Buddha understood that the illusion of ownership fosters craving and dissatisfaction, and that letting go of that illusion frees us from selfishness.

The third great illusion is that of *normality*. Every generation clings to the belief that if we stick to the old ways everything will be fine. The most toxic religions are those which use literal, fundamentalist interpretations of Scripture and tradition as excuses not to change. We tend to believe that our own reality is “normal”, but the truth is that we create our own realities and will not find happiness until we accept *responsibility* for what we create. Peter talked of how modern society lacks the “fuel” provided by hermits and sages who are simply practising what it is to be human, away from materialism and the manifestations of power. The patriarchal model has brutalised men as much as women and both sexes need to reject that model and find another way to be. Ultimately, perhaps the purpose of creation is to move towards divine consciousness.

We then moved on to a session with **Dean Radin** by video link from California. He is the senior scientist at IONS and author of the recently published book *Supernormal*, in which he explores the scientific evidence for the existence of supranormal powers in modern times. There are many historical and mythical stories of miraculous and supernatural events in the world literature, which are very often dismissed as exaggeration, fluke or plain fiction. Such stories may indeed be fictitious, but we have to consider the possibility that they are true, however unlikely. The subject of his talk was “Was Buddha Just a Nice Guy?” and he began by asking three questions about the nature of consciousness. Firstly, is consciousness generated by the brain? The brain is clearly a computational system, but what is not clear is how the brain is able to be self-aware. Secondly, is the brain mediating ‘God’ or some other external phenomenon? In other words, does it act like a television set? This is something that cannot be



Marilyn Schlitz



Andrew Powell

proved or disproved by science. Finally, does consciousness exist outside the body, or is it some kind of “divine” energy? We tend to ‘see’ religious iconography spontaneously in the world around us (such as the famous toasted cheese sandwich which appears to show the face of Jesus), and also commented that despite the Dalai Lama’s work to open up the dialogue between scientists and meditation practitioners, scientists remain unwilling to engage with issues such as reincarnation and oracles.

Meditation and yoga have now moved into the mainstream, and are known to be beneficial in some chronic diseases that modern medicine has difficulty treating. Modern yoga derives from the yoga sutras of Patanjali, which are at least 2000 years old. The teachings indicate that our aim is to achieve *Samadhi* (enlightenment, unity), and that we will acquire special (supranormal) powers called the *siddhis* along the way. These powers involve the *mind and body* (e.g. healing, inedia, great strength, levitation), *clairvoyance* (perceptions through space and time, both micro and macro) and *psychokinesis* (mind over matter). It is worth noting that descriptions of these phenomena exist in all religions, though given different names.

Dean first talked about telepathy (knowledge of minds), which can be tested under Ganzfeld conditions. He stated that there is converging and repeatable experimental evidence that telepathy and precognition exist *beyond reasonable doubt*. He then discussed ‘mind over matter’, and reminded us of the well known effect of observation on photons (light): observation ‘collapses’ the wave function of photons projected through a double slit device (or interferometer) onto a screen, thereby altering the interference pattern produced. Dean’s experiments at IONS have shown that subjects were able to affect the interference pattern remotely through visualisation alone, and that experienced meditators did much better than non-meditators, presumably because they are more skilled at maintaining a stable mind state.

Dean described the *siddhis* as space time independent and seeming to involve a “first sense” rather than a “sixth sense”. They are modulated by talent, experience, belief, emotions, empathy, motivation, and openness. He concluded that most of the *siddhis* have been systematically studied and, in his opinion, science has confirmed that most of them do indeed exist. This evidence now demands a major ‘advancement’ in the neurosciences and physics, mostly in the form of “political loosening up”. Progress is proving to be very slow, and in his view every advancement is still absurdly controversial. The editors of journals express concerns about publishing these data on the grounds that they will provoke “bewilderment” and controversy, but in doing so they are exhibiting a fear-based reaction!

On the Saturday evening we were treated to a showing of a new film by Marilyn Schlitz, entitled *Death Makes Life Possible*, in which she explores the evidence for life after death. It was a touching and thoughtful film which provoked a lot of discussion amongst the audience, many of whom felt that it was culturally very much oriented towards a US audience. It will, I am sure, prove an invaluable educational tool in the US, but the cultural bias would probably make it less useful in the UK. Nevertheless, we all very much appreciated the opportunity to see the film, and to talk with Marilyn about its making and content.

First on the podium on Sunday morning was **Andrew Powell**, who is well-known to SMN members and is the founding chair of the Spirituality and Psychiatry Special Interest Group of the Royal College of Psychiatrists. He entitled his talk “Getting Real: Western Science Meets Spirit - or Doesn’t”. Andrew took a very much more pessimistic view of the state of humanity than our earlier speakers, arguing that he does not see evidence that humankind is on the verge of a transformation of consciousness, nor for the imminent creation of a society based on the golden rule. Science is of its very nature reductionist and bottom-up in approach. Scientists often regard spirituality as merely a product of the human imagination, whereas spirituality speaks of consciousness being bequeathed to us by a conscious universe. The secular mind may hold that we need to invent religion to protect against our fear of annihilation, but others such as David Bohm speak of the universe as “one unbroken whole”. Andrew also referred to Ann Baring’s *The Dream of the Cosmos*. She writes of a ‘lunar era’ of prehistory in which spirit exists in the whole of nature and the feminine is in the ascendant, but which has been replaced by a ‘solar era’ where the masculine is dominant and God is placed outside nature. During the Enlightenment, spirituality became separated from material reality and effectively “closed the window on the human soul”. In turn, our current era is characterised by colonisation, exploitation and huge expenditure on weaponry and conflict. We have become enchanted by technology and science - understandably - but these forces are highly dangerous when misused.

Andrew believes ‘technopathology’ to be a major problem in our time. He remembered his youth as a more innocent time, in which there was radio but no TV. Peoples did things together, and toys and games were simple. Now young people, on average, spend four hours a night watching television and only 3 to 4 hours a week in meaningful conversation with their parents. They experience huge exposure to TV advertising, screen violence and sexuality. People’s attention span has become shorter, there is an increase in violence, over-

stimulation and ADHD, and a general decrease in empathy. The media expose young people to the risks of abnormal sexuality, ‘grooming’, bullying, blackmail and problem gaming. Secular society promises happiness but in reality only delivers pleasure, and pleasure seeking itself has become a problem. There has been a loss of capacity for rich human relationships, and of values, with greater risk of depression, mental health disorders and addiction.

The global population is exploding but it is no longer politically correct to discuss population problems. We are destroying the Earth’s ecology, and self-interested people continue to manipulate the system for personal monetary gain, without regard for others and accountable to no-one. We are witnessing a loss of trust, as shown by the banking crisis, the sexual abuse scandal in the Catholic Church, political spin and disinformation, and the emergence of conspiracy theories around issues such as the HARP project and ‘chemtrails’. We are obliged to make our own judgements about all these things, but too often people who challenge conventional views are labelled paranoid or eccentric and whistle-blowers get ‘taken out’ of the system.

Confronted by disturbing information in the absence of trustworthy sources of information, we tend to react by denial, splitting off, and projection of our paranoid reactions. Technopathology tends to produce over-simplification of issues and duality in thinking - “them and us”. It is really difficult to remain sane when facing a multiplicity of problems in this context.

In conclusion, Andrew proposed that spiritual love may be the only way to stop the ‘runaway train’. A love that is non-dual and values-based may be able to move people towards change in a way that confrontation will not. Kindness and compassion can disarm where the ego does not. If we don’t change we will simply disappear, destroyed by misuse of our own science and technology. Andrew finished up by quoting a Chinese proverb: “light a candle, do not curse the darkness”.

The last speaker of the conference was **Kate Anthony**, a leading expert on the use of technology in psychotherapy and coaching, and CEO of the Online Therapy Institute. Her talk proved as challenging as it was fascinating, and especially challenging for an audience that was predominantly from an age group predating the IT revolution! Kate has eagerly embraced IT and, unlike Andrew, believes that technology itself is not at fault for the bad things that are associated with it. Many of these ‘ills’ already existed in society, such as gambling or sex addictions, and have simply transferred to the internet. 65% of our population currently own at least two IT devices and we are now only 4.7 clicks away from every other person on the planet. Society is changing, and

though the internet and mobile technology still feel alien and uncomfortable for those who grew up before its introduction, for young people it is becoming second nature. Social media sites simply offer a different way of experiencing ourselves and our psyches. She spoke of how her 300 Facebook friends are as significant to her as her real face to face friends, but they occupy a different space in her psyche.

Kate went on to say that the culture of cyberspace is a culture in its own right, and if we judge it by off-line societal norms it will, of course, appear unfamiliar and confusing. But the older generation is still trying to influence young people to follow traditional cultural norms. We’re not yet at a point where technology blends seamlessly into our consciousness, but she believes that it is going to happen. Kate commented that she uses many different ways of communicating with people, and that, although she can usually remember the content of her exchanges with friends and colleagues, she cannot always remember the medium through which the contact took place!

Though Larry Rosen has introduced the concept of *iDisorders*<sup>7</sup>, which he attributes to relentless connection to networks, blogs, e-mails and so on, Kate does not believe it is useful to pathologise our behaviours in relation to IT,<sup>8</sup> but she does agree that one hugely important issue of concern is the ‘online disinhibition effect’.<sup>9</sup> This seems to arise because because online we think we are safe, and may lose our inhibitions in a way that we would not when face to face with another person. The end result can be behaviours such as trolling, cyber bullying and blackmail, cyber infidelity, the use of ‘trigger images’ and Munchhausen by Internet. When online we need constantly to check our own feelings and attitudes in order to reduce the risk of disinhibition. She emphasised that behaviours on the internet reflect pre-existing behaviours in society, but that they are exacerbated by disinhibition. However, in the therapeutic process, disinhibition can be helpful; individuals may feel less shame and be more honest when using a computer than when speaking to a therapist face-to-face.

Kate went on to break down the disinhibition effect into subcategories, starting with dissociative anonymity (“you don’t know me”). Codenames may give people the illusion of anonymity, so they can convince themselves that their behaviour is online is ‘not really them’ and so feel less accountable. However, this state can also allow people to explore certain behaviours in safety, such as a transgender person trying out living as the other sex, or someone with Asperger’s syndrome practising social skills. Asynchronicity (“see you later”) occurs when someone is not reacting to other people in real time. They do not have



Peter Owen-Jones



Sending out the Light

Kate Anthony

to deal with another person's reactivity, which may result in the emotional 'hit-and-run'. Solipsistic interjection or egoistic self-absorption ("it's all in my head") describes how someone creates the voice and appearance of the person whose message they are reading, inside their own head - just as we do when reading a book. Online communications allow them to create elaborate fantasies, which fit their own needs and may include fantasy role-play with considerable disinhibition. This scenario can be rich therapeutically, and Kate cited the work of Julian Leff, the psychiatrist who created "avatar therapy" for schizophrenics suffering from auditory hallucinations, with remarkable results. But this form of disinhibition is also potentially very dangerous. She recommended seeing Barbara Schroeder's 2009 film *talhotblond* as an example of what can go wrong. The film documents a true story in which cyber fantasy spilled over into real life with tragic consequences.

Dissociative imagination ("it's just a game") can magnify our disinhibition when a 'conversation' is going on entirely within our own heads. Kate also talked about video games at this point, and agreed that they can be highly addictive and can temporarily affect real life behaviour. Another outcome is Minimising authority ("we are equals"). What determines your influence on others in cyberspace is your skill in communicating, not your power position. As a result, people may feel more independently minded and come to see themselves as 'explorers'. In the therapeutic context, minimizing authority can reduce the power differential between client and therapist and thus aid the therapeutic process.

Kate talked about how online therapeutic work is more demanding than face-to-face consulting as there are no physical cues, and how it is necessary to have an online language for communicating things like the need for periods of silence during a session. She set up the Online Therapy Institute with her colleague DeeAnna Nagel, with the purpose of training other mental health practitioners about the online environment and therapy, and to aid understanding of how people's behaviours are different online. Kate and DeeAnna are already looking ahead to a time when holographic technology will allow practitioners and clients to maintain a physical presence during online communications.<sup>10</sup> They produce an online therapy magazine called Tilt Magazine,<sup>11</sup> of which Kate is very proud. She then went on to share with us a little of her identity in Second Life, introducing us to her avatar and showing us around her virtual office - including meeting the office cat!

In summary, Kate explained that the pitfalls and damaging aspects of IT and the internet are well known, and that it is important that we act to limit these disbenefits in the future. The technology is here to stay, so our aim must be to turn the internet into a force for good. We must embrace cyberculture and educate people to use it safely. We must teach young people that online life is real life, and this will be the best protection against online dissociation and its consequences. She believes we are at a crucial stage in shifting global consciousness, and that the Internet may be an essential part of that process. But we must approach it mindfully. Most parents are less IT and cyber 'savvy' than

their children and therefore may be ill equipped to guide their children in this area. We can predict what is coming and be mindful of what could be misused, and it is the i-generation that is most likely to be able to do this.

The conference was rounded off by a plenary session in which a number of important themes emerged.

- There is a confusing historical legacy around the language describing aspects of the psyche - ordinary consciousness, the subconscious, the unconscious, the super conscious and so on - but what we are really talking about is *process* rather than structure.
- We need to create a new story for the future rather than allowing ourselves to be overwhelmed by negativity about the present. Falling into fear and denial blocks us from feeling love.
- If we create our reality through our thoughts, do we risk reinforcing existing problems and threats by constantly talking about them? Perhaps we should be looking for the best in everything, including the Internet and cyber world?
- We tend to become interested in whatever we are exposed to, whether it be nature or IT. However, the immediacy of interaction on IT machines is very attractive to children, so good parenting is required to keep an appropriate balance.
- We would all benefit from paying more attention to our instinctual side and experiencing our bodies more, but that is something we cannot do through the cyber world.
- Finding a life practice that enable us to work towards greater self-awareness, mindfulness and cooperation is essential if we are to create a more just and sustainable way of living in the future. We must aim to hold a positive vision, wholeheartedly and in whatever way is true for each of us.

I was very much looking forward to this year's Beyond the Brain conference from the moment I booked. The choice of speakers was, as always, inspired, and produced a programme that was educative, entertaining and controversial in equal measure. Especially noteworthy was the extent to which the audience was challenged by Kate Anthony's presentation - myself included - but I believe that her input offered us a powerful insight into the risks and potential benefits of technology and the internet. I am grateful to her for obliging me to step outside my comfort zone and address my resistance to cyberculture! Technology and science are at the heart of the global problems we now face, as forces for both good and ill, and we must learn to harness them appropriately. Just as surely as the understanding of consciousness and our capacity to create a new reality must lie at the heart of any solutions to our global problems.

**Dr Liz Archer** is a retired GP



# Continental Symposium Living the Key Myths of our Time

Aegina, Greece, 20 – 23 September, 2013

Jacqui Nielsen

Our group came together on Friday 20<sup>th</sup> September in Athens to visit the Acropolis Museum and the Acropolis itself before setting out for Piraeus and the island of Aegina, our base for the conference.

On Aegina we were lodged in a small family run hotel, the Vagia, and we had the place to ourselves. We were a small group, just twenty-five in number, and this fact combined with the peaceful and informal location contributed to the relaxed and convivial atmosphere of the conference, a true symposium in the Greek sense.

Over the weekend we heard four speakers address specific mythical themes from their own perspective and we had the opportunity to enjoy the walks and bathing that the island offered.

We visited the temple built in honour of the nymph Aphaea. According to myth she swam to the island for refuge.

The first talk was given by **Emilios Bouratinos**, an Athenian and a philosopher of science who takes his inspiration from the great physicists of the twentieth century whose discoveries called into question the positivist materialist assumptions of much of contemporary science. His subject was *The Myths of Prometheus and Erysichthon*.

Prometheus means "he who knows in advance", his brother being Epimetheus, "he who knows after the event". Prometheus had helped Zeus to win the war of the gods but refused the offer to become a god. He sacrificed himself for humanity and was therefore identified by some early Greek Christians with the Christ. He sought to protect humanity against its tendency to objectify. Emilios Bouratinos said that the Greeks had resisted the adoption of writing for two thousand years.

Emilios also described the less well known myth of Erysichthon, recorded in the *Metamorphoses* of Ovid, king of a city state, who gave himself to greed, ending by eating his own flesh. Following Emilios' exposition the hearers were invited to offer their thoughts on contemporary meanings of this myth. Many ideas were suggested, materialism and capitalism, and the latter enabling the pursuit of mass consumerism, and the Buddhist concept of desire.

"Getting and spending we lay waste our powers"

Emilios Bouratinos defined a myth as a lie that reveals a truth that each person can identify with in his own way. There is no authoritative or absolute interpretation of a myth. It does not lend itself to dogma.

Next **Dr. Vasileios Basios** spoke on *Transcending the Myth of Mechanism*. Dr Basios is a senior researcher in the Physics Department of the University of Brussels.

His work is in the field of self-organisation and emergence in complex matter. First he spoke of Plato's cave, whose inmates see only shadows of the reality outside, produced by a fire in its mouth.

The Renaissance saw the recovery of the body of knowledge possessed by the Greeks of Alexandria, which had been lost. Then the thirty years war suppressed the Renaissance ideals, leading to a new approach. Galileo said "measure what is measurable, and what is not measurable, make it so".

Vasileios identified the publication of Descartes "Treatise on Man" in 1637 as the salient moment for the triumph of the mechanistic view of the universe. Aristotle had identified four kinds of causes. In the new conceptual scheme only two were left, material and moving causes. If one takes the example of a building, these would correspond respectively to the bricks and the builders. Aristotle's formal and final causes, corresponding in this example to the plans and the purpose of the building, were now discounted.

However, since the advent of quantum mechanics, systems sciences and complexity theory, the mechanistic view is no longer tenable. And yet, research might have to take place outside the universities. He made the suggestion that the SMN might found a research institute.

Godel said that truth is not always provable. We should create a new myth to make quantum physics accessible to the general public. The focal point should be the validation of experience without experiment.

This was followed by **Paul Devereux** who spoke about *Myth and Landscape*.

Paul Devereux is managing editor of the academic publication, *Time & Mind* and author of many academic works, mainly focused on the location and acoustic aspects of archaeological sites, and the archaeology and anthropology of consciousness.

He said that myth was encoded in the landscape, a connection recognized by all traditional societies but which might be viewed as a human mental projection on to the landscape. An example is Camelot, identified as South Cadbury, connected in legend to the nearby Glastonbury Tor. He showed a video of the undoubted Camelot! In Ballachroy, Kintyre, the sun is seen to set into the Paps of Jura.

Myth in the landscape is thus often based on simulacra and features of the landscape are invested with spiritual significance or even personality. Manitoba means "the place where the great spirit sits". Mount Shasta, California, U.S.A. is in Indian lore the first staging post for souls after death.

<sup>1</sup> Willis Harman (1992) *New Metaphysical Foundations of Modern Science*,

<sup>2</sup> The subject has half a ping-pong ball taped over each eye, illuminated with red light, and is subjected to white noise through earphones. These conditions induce an altered state of consciousness.

<sup>3</sup> Princeton Engineering Anomalies Research

<sup>4</sup> Fugelsang & Dunbar (2005)

<sup>5</sup> Ernest Becker (2007) *The Denial of Death*

<sup>6</sup> Fritzsche et al. (2010)

<sup>7</sup> Larry Rosen (2012) *iDisorders*

<sup>8</sup> For her review of *iDisorders* go to <http://tinyurl.com/mbhro5u>

<sup>9</sup> John Suler (2001)

<sup>10</sup> <http://ahpb.org/index.php/appreciating-cyberculture-and-the-virtual-self-within-kate-anthony-and-deeanna-nagel/>

<sup>11</sup> at <http://onlinetherapyinstitute.com/about-tilt-magazine/>

Similarly in the Hopi country of Black Mesa, Arizona, a shaman would enter a trance at mid winter and project his soul to the mountain. Such associations in Greece include Mount Juktas in Crete, a peak reminiscent of the breasts and raised arms of Minoan goddess figures and the horns of consecration.

He then described the myth of Demeter and her daughter Persephone. When Persephone was taken to the underworld by Hades, Demeter was distraught and looked everywhere for her. Her grief upset the cycle of nature and brought winter to the earth. Jupiter sent Hermes to take Persephone back but Hades persuaded her to eat the seeds of a pomegranate with the result that she had to return to the underworld for part of the year, our winter. The Eleusinian mysteries were centred around this myth.

The initiates consumed a drink in measured dose, probably an ergotized beer containing a compound similar to LSD. It was suggested that we think of the landscape speaking to us and live in the myth of "anima mundi".

Next we heard **David Lorimer** speak on the subject of *Gaia and Faust – the Tension between Harmony and Control*.

David Lorimer is programme director of the SMN, C.E. of Character Scotland, president of the Wrekin Trust and vice-president of the Swedenborg Society as well as being a noted author. He contrasted the concept of *Gaia*, the cyclical rebirth of nature, adaptation and harmony, with *Faust*, striving, unlocking secrets, aspiring to control through magic, reaching beyond set limits.

This is the contrast expressed in Goethe's *Faust* and the very different spirit of his science, carried forward by Scheiner, Schauburger and Gregory Bateson and perhaps exemplified in our time by Schumacher College. The mainstream of the modern world with its technological control and its reductionist science is the ultimate expression of the spirit of Faust.

However, according to Charles Eisenstein the objectives of complete understanding and complete control are not simultaneously achievable. An alternative to the Faustian approach has been growing since the early 20<sup>th</sup> century, new theories in physics, new concepts such as emergence and radical ethical viewpoints.

We can imagine four new myths that offer insight into the new vision. From the perspective of Owen Barfield, our consciousness has its origin in participation, evolves through separation and finds its fulfillment in fusion. The ecotheologian Thomas Berry looked forward to humans becoming a benign presence on the planet. The American natural philosopher Walter Russell saw humanity as the embodiment of cosmic consciousness. Peter Deunov envisaged a worldwide culture of love and wisdom. These are four new myths for our times.

The rhythm of life is to unfold from the one, the unmanifest, the invisible, into the many, the manifest, the visible and then to refold back into the one. This is birth, awakening, emergence, creation. All things return to their source. Cosmic consciousness is the goal of human development.

This is the age of reunion. The limits to growth precipitate a birth crisis. Those things that must happen to avert the convergence of crises will only happen as their consequence. If the status quo did not become intolerable, there would be nothing to impel change. There are only two things which spur people to change, inspiration and desperation.

Of all the peoples of the ancient world the Greeks were the most advanced, technically, economically and culturally. They were also the most liberal, both politically and socially.

Through their trade and colonies and as a consequence of the conquests of Alexander, their cultural influence spread throughout the Eastern Mediterranean and beyond. One might, therefore, compare their position in relation to their ancient world to that of Europeans in the modern world. This gives their insights a special relevance for us today and this symposium brought us as close to them as we could possibly envisage.

**Jacqui Nielsen** is a Barrister and runs the *Network Local Groups*.

## Science and Spiritual Practice – Edinburgh 15<sup>th</sup> June 2013

*Ken Webb*

### Introduction: David Lorimer

After welcoming delegates and participants David began by talking about the importance of the interface between science and mysticism, science and theology and science and religion. These disciplines have not always been as integrated as they should be. This conference dealt with the interface between science and spirituality, which is connected with experience rather than belief systems and deals with how one experiences the divine and nature.

David mentioned the work of Ravi Ravindra: 'Science and the Sacred'. Science extends our organs of perception but does not necessarily transform them. The spiritual path is a transformative process to escape from selfishness to compassion for all. Today we are dealing with both so we become who we really are at a deeper level. "Whatever you are, be a good one." (Abraham Lincoln)

### Dr Neil Douglas-Klotz – *Nomadic Spirituality: an evolutionary view of spiritual practice in world culture*

Spirituality is normally seen as an outgrowth of religion, particular constructs of human faith. However Dr Douglas-Klotz's thesis was that religion is an outgrowth of spiritual practice rather than the other way round. He began by outlining the features of a human consciousness in the pre-axial age. The distinction between sacred and profane

was less differentiated; the sense of individuality was less distinct and was embedded in community; the body was not seen as being separate but as being co-extensive with the environment and as an expression of the divine; past, present and future were far more interconnected.

Finally, toward the end of nomadic period we find stories beginning to be told. With the possible exception of aboriginal myths, the great myths of religion are a relatively recent development. They are attempts to remember times before; these are what we need to know in order to flourish.

The development of agriculture in the axial age, making possible human settlement, resulted in major shift in human consciousness. In a more individualized culture the individual visionary – shamen, nabi, prophet, ritual expert – who travel between the worlds, begin to tell these stories. Some of these memories become enshrined in spiritual practices such as breathing meditation, body awareness, chanting etc. Some become more occult because they cannot survive in the new world. Some rituals and stories become enshrined in systems of belief. These are not just remembering. They are resources for humanity rather than the fixed archetypes of Freud and Jung. They are ways of remembering that evolve into systems of belief.

If this is true then sharing this across faith traditions makes far more sense. Not just as a way of engaging in dialogue (which is necessary) but as a way of sharing spiritual life. This is essential for human health, and is cost effective as well. To bring this into popular culture we need to relate these practices to the big questions of life (an approach adopted in by Dr Douglas-Klotz in his book, 'Desert Wisdom'). For some questions it is more important just to ask them. Live with unknowing. Others need some form of answer that is discovered together with others. Is there such as thing as being, consciousness? Is there something beyond that? The best answers come in form of poetry.

### Prof Wilson Poon (School of Physics and Astronomy, University of Edinburgh) – *Science and the Darkness of God: scientific practice and practical mysticism*<sup>1</sup>

Prof Poon addressed the question of how it is that science and religion have been split off from each other in such a way that they cannot understand each other? He talked of the journey towards understanding as a 'Road less travelled'. Tracing the emergence of terms such as religious experience, spirituality and scientific to the birth of modernism in the late 18<sup>th</sup> century and the divergence in meaning of words such as experience and experiment that followed, Prof Poon showed how a wedge was driven between 'experiment' and 'experience' with the former becoming a tool of science and the latter the data for religion.

Religion was confined to the private realm and Natural Philosophy or Science became the public realm. God

becomes an explanation in Religion, but became a redundant explanation as science filled the gaps in understanding. The modern interest in spirituality and mysticism grew from this split. Prof Poon contrasted 'Cataphatic' talk of God with Apophatic silence. There is need for both (C.f. shape of ellipse that has two foci). He suggested that a Cataphatic approach, drawing on the words of Scripture, was not sufficient. We also need to 'read' the book of nature. He went on to outline how scripture, in places, is reticent to speak of God citing, "Surely thou art a God who hides thyself" (Isaiah 45.5) in conclusion.

Science is practising the presence of God through disciplined attention to divine speech in the book of God's works. What do we hear when we listen to (observe) nature? Hawking hears everything, whereas Steven Weinberg hears nothing. Prof Poon argues that neither is right.

Citing Julian of Norwich's famous vision of a hazel nut in which, it was revealed to her, exists everything that is made, Prof Poon drew attention to the way that the cross reveals "God emptying godself of all power and self-assertiveness." And pointed out that, similarly, "The whole created order displays the same self-limitations of God as brought the world into being. ...." (Grace Jantzen: 'Julian of Norwich'). What we are supposed to hear when we do science is the thick darkness of God. When we study human beings we reach the same point. Practising the presence of God as a scientist means not hearing too much and not hearing too little.

Prof Poon concluded his talk by reading a poem by R S Thomas: *Emerging*.

### Prof. Chris Clarke – *The Living Cosmos: from oak trees to the Big Bang via quantum theory*.<sup>2</sup>

Prof Clarke talked of his own spiritual practice as leading to a non-dual consciousness characterized by bliss, luminosity and non conceptuality ... there is an experience of there being no division between subject and object. The response is of complete silence, God addressing us in deep silence. This non-dual consciousness is witnessed to by mystics in different religious traditions, as illustrated by quotations from Alan Wallace (Buddhist) and Meister Eckhart.

Prof Clarke drew attention to two different ways of knowing, a relational way of knowing and a propositional way (citing Iain McGilchrist's 'Master and his Emissary'). Both of these cognitive subsystems are hard wired into our brains through evolution. Both, he said, were needed for complete processing of knowledge. Otherwise things go wrong.

He raised the question of how we can use this insight to enable science and spirituality to engage appropriately with each other. How do we use words to talk about a reality that is in essence beyond words? One way is to model a complex reality in simple terms, using an alternative logic – a contradictory logic, starting with consciousness (not defined mechanistically).



Drawing on the work of John von Neumann (1932) and his basic mechanism of quantum observation and the work on consciousness of Fritz London and Edmond Bauer (1939) Prof. Clarke proceeded to make a link between quantum physics and consciousness.

Looking first at a relational account of consciousness he asked if consciousness does anything? Or is it merely a by-product of a mechanical process? He made the point that effective doing flows from Being: being involves relationship, including my relationship with myself. Relationship is shared being. Spiritual practices train us for doing the work that flows from being. (C.f. Meister Eckhart: “.... and in this essence (being) eternally work one work”. I.e. Work and being (verb) are identical – and identical with Being (God).

He then explored a propositional account of consciousness, drawing on and explaining the concept of entanglement in quantum theory. So, what goes on in our brains is a series of overlapping systems, all of which are separately conscious. Conscious beings can overlap: in physical theories, smaller units can be nested within larger ones (Hameroff & Penrose). Is the universe as a whole a Being – the body of God? If so, then the relationship between universe and higher consciousness is like that which exists between a body and consciousness.

With this sense of consciousness there is no ‘lower limit’ of sophistication regarding what can be conscious and what cannot – this is the principle of ‘pan-psychism’.

See Book by Prof Clarke: *Knowing, Doing and Being* ISBN 9781845404550

### Dr Peter Fenwick – Current Models of the Human Mind: can modern science give a good explanation for spiritual experience?

Dr Fenwick began with the question: Can modern science give a good explanation for spiritual experiences? The standard paradigm assumes that the brain and only the brain processes are responsible for the generation and the experience of consciousness. But this is not a satisfactory explanation. The main problem is the divide that remains between the subjective and objective approaches.

Dr Fenwick referred to a study of the changes in the brain during mystical experiences in Carmelite nuns by Beauregard and Paquette in 2003. The results showed various areas of the brain ‘lighting up’ during subjective feelings of joy

and unconditional love and when there was the subjective impression of contacting a spiritual reality. But this is a very blunt measure.

Dr Fenwick went on to look at a study of brain electrical activity during meditation by Aflanas and Glocheikin<sup>4</sup> who looked at EEG changes. These show that there are electrical patterns that correlate with meditation mental states. In particular, experiences of bliss are associated with increased theta waves in the frontal areas. So, fMRI Phrenology tells us where functions are located, but it does not help us with the meaning and nature of consciousness.

Dr Fenwick talked of well documented near death experiences (NDEs) and after death experiences (ADEs) during which there is no brain function. These cases suggest that the mind operates in the absence of cortical brain function during ventricular fibrillation. Studies on the deathbed experience in the dying show that approximately 10% of all dying people are conscious shortly before their deaths, and of these people, it is estimated that 50% to 60% experience deathbed phenomena.<sup>5</sup> Dr Fenwick asked what might be the nature of consciousness during these states?

Rejecting various physical models, he said that standard Descartes Dualism assumes that mind and body are different. However this conflates two different views, Substance Dualism and Hylic Dualism. Substance Dualism posits that mind and body are two different things. Whereas Hylic Dualism says they are two different kinds of stuff; psychonic (mental or soul) stuff and physical stuff.

Dr Fenwick sees Hylic Dualism as offering the most satisfactory model. It conceives of brain interpenetrating with ‘soul stuff’. How are the two connected? Whilst the brain exists in a 4 dimensional world the Mind, or ‘Soul stuff’ (consciousness) exists in a multidimensional space.

Rev Dr Ken Webb is the Ministerial Development Officer for the Anglican Diocese of Edinburgh.

- <sup>1</sup> Prof. Wilson Poon stepped in to replace Prof. Ursula King, who was unable to attend.
- <sup>2</sup> Prof. Clarke added ‘via quantum theory’ to the title given him.
- <sup>3</sup> Neuroscience Letters 2006 no. 405: 186-190
- <sup>4</sup> Neuroscience Letters 2001
- <sup>5</sup> Wills-Brandon C. 2003 (others give higher rates)



## Alfred Russell Wallace and his legacy

Discussion Meeting, Royal Society, London, 21–22 October 2013

Dick Vane-Wright, Canterbury, Kent

The famous 1955 ‘April in Paris’ recording by Count Basie ends with two reprises of the powerful, driving final chorus. For the first, Basie directs his band “one more time”. And then, to signal the second, the Count intones “One more once!” I had a bit of a ‘one more once’ moment as I contemplated this latest in the now seemingly endless string of meetings celebrating the life and work of Alfred Russel Wallace – including, not least, SMN’s own 2008 tribute (*Network Review* (99): 22–24, 2009). Was this to be more of the same?

There is no question that during the last half of the 20<sup>th</sup> century this remarkable polymath and social activist was not given sufficient recognition. The ‘excuse’ this year, if one were needed, has been to celebrate the surprising fact that 2013 marks the 100<sup>th</sup> anniversary of Wallace’s death. I find it remarkable to contemplate that only a century has passed since the demise of one of the co-founders of the theory of evolution by natural selection – a theory arguably that has had greater impact than any other paradigm shift on our

understanding of the human species and our place in nature. So much has happened to the intellectual landscape since the Darwin/Wallace papers of 1858, and even since 1913 – not least to the fall, rise, and shift in status of natural selection itself.

A particular angle for the Royal’s meeting was to pair speakers on certain Wallacean topics, so that the first gave a 15-minute potted historical account of the great man’s achievements in the particular field, to be followed by a 40 minute presentation assessing Wallace’s contribution in the light of contemporary studies. According to the organisers (George Beccaloni, Dianne Edwards FRS, Sir Ghillelan Prance FRS), this was a radical and even hard-fought departure for a Royal Society discussion meeting – at which history of science is normally *verboten*. In the event, I thought the formula worked brilliantly – though it was not in fact adhered to throughout.

Following welcomes from Peter Cotgreave (ornithologist, and the Royal’s Director of Fellowship and Scientific Affairs), and Dianne Edwards, the first two talks were in fact forbidden history: an almost breathless account by entomologist George Beccaloni summarising the ‘early’ period of Wallace’s life, up to the end of his monumental eight-year Malay Archipelago expedition, followed by historian John van Wyhe addressing again the controversy over the possible misconduct of Darwin and his coterie after the bombshell of Wallace’s ‘Ternate essay’ arrived at Down House. The next six talks, which completed Day 1,

Young Wallace’ sculpture by Jane Robbins; copyright the Natural History Museum



addressed three of the chosen Wallacean topics (in each case the 'historical' speaker is listed first): natural selection (Janet Browne, Harvard, and Steve Jones, FRS); biogeography (Charles Smith, Western Kentucky, and Lynne Parenti, Smithsonian); and colouration (Dick Vane-Wright, and Tim Caro, UC Davis).

Day 2 followed a slightly different pattern, with most speakers providing both history and current assessment. First up to solo was Jim Mallet (Harvard) on species and speciation, followed by Tim Birkhead FRS on one of Wallace's few disagreements with Darwin on evolution theory – the still current debate surrounding sexual versus natural selection. Next was a brief reversion to the formula, on human evolution – 15 minutes from Ted Benton (Essex), followed by a current account by the ever thoughtful Chris Stringer FRS.

Then, to start the final afternoon, perhaps the highlight of the whole event – charmed as we were by the almost luminous presence of Martin Rees, Astronomer Royal. His presentation "Wallace and the Universe" was made all the more engaging by his frank 'confession' that until invited he had never read *Man's Place in the Universe: a study of the results of scientific research in relation to the unity or plurality of worlds* (1903) – and the evident pleasure he found in Wallace's account. The next two speakers addressed topics where Wallace's forays have left a less certain legacy – a clear and perceptive review by Sir Lesek Borysiewicz FRS on "The vaccination controversy", and a thoughtful account by David Stack (Reading) of Wallace from "a social scientist's perspective." Finally, to round off the whole event, Wallace scholar Andrew Berry (Harvard) offered a trenchant summary of the great man's work – concluding "Though certainly not always, with hindsight, right in the causes he backed, Wallace should serve as a role model for the social engagement of science and scientists." Amen to that.

So, was all this just more of the same? I don't think so. Although by no means were all Wallacean topics covered (at least a few in the audience must have been disappointed not to hear more than a mention of spiritualism), the two-day format, with good time for discussion, presented a more rounded view than some recent 'Wallace events'. I also detected maturation in the emergent 'Wallace Industry'



Mature Wallace

that has rightfully grown to balance to hitherto dominant 'Darwin Industry'. A more balanced account of his strengths and weaknesses was on display, and hand-wringing to excuse our collective disregard of Wallace was less in evidence.

For sure Darwin and co. did not play entirely fair at the beginning, but the idea of an evil conspiracy is surely nonsense. As several speakers made clear, both men had huge respect for each other and remained in close contact throughout the critical post-*Origin* era. That Wallace entitled one of his greatest works simply *Darwinism* is proof enough. Wallace's period of growing obscurity after his death is far more to do with the eclipse of natural selection during the first three decades of the 20<sup>th</sup> century, following the germ plasm theory of Weismann and the rise (and subsequent fall) of mutationism. By simply adopting (and adapting!) Weismann's tag of Neo-

Darwinism for the 'Modern Synthesis' of genetics and natural selection that occurred in the 1930s, by this chance alone Wallace was going to lose out in the fame stakes.

So now is the time to stop the hand-wringing and partisanship, and continue to build on the wonderful, rich and different legacies left to us by these colossi of Victorian science: Charles Robert Darwin FRS and Alfred Russel Wallace FRS. As Richard Tarnas succinctly noted in his great 4000 year timeline for *Passion of the Western Mind*, neatly inserted between *Madame Bovary* (1857) and *On Liberty* (1859), we have a single entry for 1858: "Darwin and Wallace propose theory of natural selection." So we hear it for Darwin and Wallace one more once – and, for sure, time and time again. If you still want more, visit Cardiff during 2014 . . .

[Biographies, abstracts and audio-recordings for all speakers can be accessed at: <http://royalsociety.org/events/2013/wallace-legacy/>]

*Biologist Dick Vane-Wright is a SMN member, a Scientific Associate of the Natural History Museum, and Honorary Professor of Taxonomy at DICE, University of Kent. Currently he is editing a set of papers on behaviour and evolution for the Linnean Society of London.*



Statue of Alfred Russel Wallace OM, FRS at the Natural History Museum, unveiled by Sir David Attenborough, OM, FRS, Richard Wallace and Bill Bailey

## Of One Mind?

From: John Clarke, [jjclar7@aol.com](mailto:jjclar7@aol.com)

In the recent Summer issue of the Review, Larry Dossey puts forward a case for the belief that there is only 'One Mind' in the universe and that individual conscious minds are fundamentally identical with it. This One Mind is a 'seamless interconnected whole' in which individual minds are inseparable parts.

He might of course be thinking of our relation to One Mind as little more than everyday unity-in-plurality, like a nation or a flock of starlings; I can be at one with my team or my family without being literally identical with them. However his reference to the *tat tvam asi* - 'thou art that' - of the Upanishads, and to 'trans-individual consciousness', suggest something more metaphysically serious, and it is there that we part company.

His main argument rests on the universality of compassion and altruism in one form or another which is inadequately explained, he thinks, by orthodox evolution theory. It seems to me however that these qualities make good sense in terms of the survival of both the individual and the species. As Thomas Hobbes might have observed, the war of all against all can only lead to the non-survival of all.

There is of course more to compassion and altruism than survival, and in humans (possibly in some animals as well) the concern for the well-being of others demonstrates the emergence of new and irreducible dispositions of love and care for others. But this quality, I suggest, has emerged over long periods of time from our animal instincts, and can be best understood in terms of our behaviour towards others who may be very different from ourselves, even of the opposite sex!

Without difference, even of a quite fundamental kind, there can I suggest be neither morality nor compassion. Neither can there be knowledge. If the individual mind is identical with One Mind, then how is it possible for me to experience One Mind without losing my identity and hence my capacity to think independently or to know anything at all - including One Mind? As I see it, understanding or knowledge is typically OF something, and hence there is in most forms of knowing a separation of some kind between subject and object.

Moreover, with the support he cites from the philosophy of Schopenhauer (not the cosiest of friends, I suggest), Larry might be falling into the trap of seeing love of others as a kind of self-love, as supremely selfish - we can only love others if we see others as, ultimately, identical with ourselves. Apart from taking

the fun out of falling in love or having a really robust argument, this approach carries the danger of encouraging us to lose our sense of individual differences, and of melding into into some kind of undifferentiated uniformity.

He is rightly concerned about the forces in the world today which divide and alienate us. But the jump from this to the totality of One Mind avoids all the positive and joyful outcomes that arise from the recognition of the wondrous plurality of the world and the infinite possibilities of relating and creating within it.

I suggest to Larry that the very possibility of difference between him and me on this matter points both to the inescapable plurality of things and minds, and also to the possibility of a productive outcome of the multiplicity of points of view that lies behind our differences. Darwin celebrated 'the endless forms most beautiful and most wonderful' that biological evolution has produced, and I think we need to celebrate this too in the case of the equally prolific world of the Plural Mind.

I doubt, though, if this issue can be resolved by argument. In the end it may be, as William James said in relation to the dispute between monism and pluralism, all a matter of taste in universes. I would settle, though, for the idea of 'network ways of thinking' (Network Mind?) which Larry quotes from Jeremy Rifkin, which sounds like a useful third way between these alternatives.

### Larry Dossey responds:

I appreciate John Clarke's thoughtful comments, and I am grateful that he took the time to write them.

It is problematic in a short article in *Network Review* to do justice to Prof. Clarke's concerns. As I do not wish to re-write sections of my book, *One Mind*, I hope Prof. Clarke will permit me to refer him to the book itself, where I address all the excellent points he raises, especially the role of evolutionary biology, the relationship of individual and unitary consciousness, and the issue of freedom of will and choice in a one-mind scenario.

