

Monthly Musings – February 2019

Greville Street Meeting Programme

Sunday 3rd Feb	Self-deception – Don Ross
Sunday 3rd March	Dialogue Plus – Christopher Ash (McLean) & Alan Mann
Sunday 7th April	No Greville St., Meeting – Workshop at Genki Centre**
Sunday 5 th May	Spread Personality Theory – Dave Knowles

** As Dave will be overseas in April I have moved his talk to May. The April slot has been handed to the Sydney Nonduality Group who are interested in a Harding Workshop at the Genki Centre, Glebe. Any of our regulars wishing to attend please let me know so I can advise Kim Li who is coordinating the meeting.

Neo Darwinism and Design 2

In our November NOWletter I reported on my research into this question and in particular the books by Michael Behe and Stephen Meyer which challenge the orthodox Darwinian explanation. I have since read another book by the Finnish biochemist Matti Leisola in which he explains his shift from ardent Darwinian to an advocate of some form of intelligent design. This third book on the subject was interesting as a personal explanation of a prominent scientist's change of mind but also as a revelation of the unscientific resistance of the scientific community to serious engagement with alternative theory.

After all the reading I remain somewhere in the middle and feeling that natural selection of random mutations based on environmental opportunity, does not meet the main objections which are: Irreducible complexity, Novel forms, Sudden appearances exemplified by 'The Cambrian Shift' and The origin of life. The following extract from from "Heretic: One Scientist's Journey from Darwin to Design" by Matti Leisola and Jonathan Witt points to a possible alternative.

Information is crucial in understanding life. Biological information is more than its material carrier. The mechanisms of chemistry and evolutionary biology are insufficient to explain the information labyrinth that makes life. Systems biology approaches engineering science and uses the language of systems science, which is teleological. Explanations based on the mutation-selection mechanism of evolution are of no practical use in synthetic biology and systems biology.

Leisola adds a much earlier comment on these lines:

...Recall a quotation from Chapter 1, a passage from the Philebus of Plato (427–347 B.C.E.). In it Socrates asks the key question: “*whether we are to affirm that all existing things, and this fair scene which we call the Universe, are governed by the influence of the irrational, the random, and the mere chance; or, on the contrary, as our predecessors affirmed, are kept in their course by the control of mind and a certain wonderful regulating intelligence.*” Ever since then, great thinkers have debated those two possibilities. It’s educationally backward to declare this monumental issue off limits and insist that a properly rigorous approach to origins may only entertain the materialist position.

My most recent discovery is an article by Professor Watson of the University of Southampton which seems to offer the middle ground by way of suggesting the possibility of introducing progressive evolvability of intelligence in step with material change. I am free to reprint so I thought it would be a good idea to make it the centrepiece of this issue.

There are echoes in this, for me, of Bohm’s ‘self-ordering principles of the universe’.

Intelligent design without a creator?

Why evolution might be smarter than we think.

Richard A. Watson Associate Professor, Institute for Life Sciences/Electronics and Computer Science, University of Southampton

This article was originally published on The Conversation.

<https://theconversation.com/intelligent-design-without-a-creator-why-evolution-may-be-smarter-than-we-thought-52932>

January 28, 2016 9.55pm AEDT



According to creationists, the eyes of the great horned owl cannot be explained by Darwinian evolution.

Charles Darwin’s theory of [evolution](#) offers an explanation for why biological organisms seem so well designed to live on our planet. This process is typically described as “unintelligent” – based on random variations with no direction. But

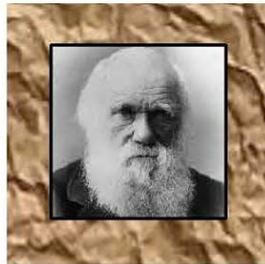
despite its success, [some oppose](#) this theory because they don't believe living things can evolve in increments. Something as complex as the eye of an animal, they argue, must be the product of an intelligent creator.

I don't think invoking a supernatural creator can ever be a scientifically useful explanation. But what about intelligence that isn't supernatural? Our new results, based on computer modelling, link evolutionary processes to the principles of learning and intelligent problem solving – without involving any higher powers. This suggests that, although evolution may have started off blind, with a couple of billion years of experience it has got smarter.

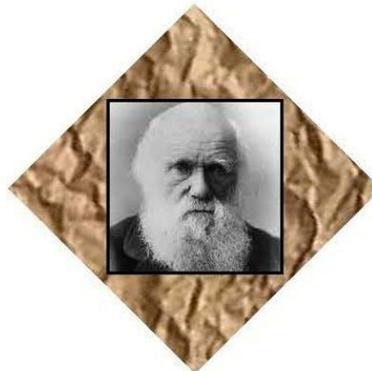
What is intelligence?

Intelligence can be many things, but sometimes it's nothing more than looking at a problem from the right angle. Finding an intelligent solution can be just about recognising that something you assumed to be a constant might be variable (like the orientation of the paper in the image below). It can also be about approaching a problem with the right building blocks.

With good building blocks (for example triangles) it's easy to find a combination of steps (folds) that solves the problem by incremental improvement (each fold covers more picture). But with bad building blocks (folds that create long thin rectangles) a complete solution is impossible.



Can folding this wrapping paper cover this picture?



How about now?

Looking at a problem from the right angle makes it easy.

In humans, the ability to approach a problem with an appropriate set of building blocks comes from experience – because we *learn*. But until now we have believed

that evolution by natural selection can't learn; it simply plods on, banging away relentlessly with the same random-variation "hammer", incrementally accumulating changes when they happen to be beneficial.

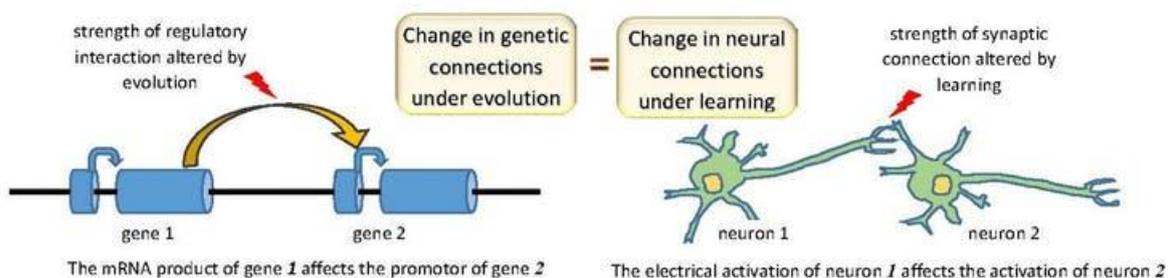
The evolution of evolvability

In computer science we use algorithms, such as those modelling neural networks in the brain, to understand how learning works. Learning isn't intrinsically mysterious; we can get machines to do it with step by step algorithms. Such machine learning algorithms are a well-understood part of artificial intelligence. In a neural network, learning involves adjusting the connections between neurons (stronger or weaker) in the direction that maximises rewards. With simple methods like this it is possible to get neural networks to not just solve problems, but to get better at solving problems over time.

But what about evolution, can it get better at evolving over time? The idea is known as [the evolution of evolvability](#). Evolvability, simply the ability to evolve, depends on appropriate variation, selection and heredity – Darwin's cornerstones. Interestingly, all of these components can be altered by past evolution, meaning [past evolution can change the way that future evolution operates](#).

For example, random genetic variation can make a limb of an animal longer or shorter, but it can also change whether forelimbs and hindlimbs [change independently or in a correlated manner](#). Such changes alter the building blocks available to future evolution. If past selection has shaped these building blocks well, it can make solving new problems look easy – easy enough to solve with incremental improvement. For example, if limb lengths have evolved to change independently, evolving increased height will require multiple changes (affecting each limb) and intermediate stages may be worse off. But if changes are correlated, individual changes might be beneficial.

The idea of the evolution of evolvability has been around for some time, but the detailed application of learning theory is beginning to give this area a much needed theoretical foundation.



Gene networks evolve like neural networks learn. [author](#)

Our work shows that the evolution of regulatory connections between genes, which govern how genes are expressed in our cells, has the same learning capabilities as neural networks. In other words, [gene networks evolve like neural networks learn](#). While connections in neural networks change in the direction that maximises rewards, natural selection changes genetic connections in the direction that increases

fitness. The ability to learn is not itself something that needs to be designed – it is an inevitable product of random variation and selection when acting on connections.

The exciting implication of this is that evolution can evolve to get better at evolving in exactly the same way that a neural network can learn to be a better problem solver with experience. The intelligent bit is not explicit “thinking ahead” (or anything else un-Darwinian); it is the evolution of connections that allow it to solve new problems *without* looking ahead.

So, when an evolutionary task we guessed would be difficult (such as producing the eye) turns out to be possible with incremental improvement, instead of concluding that dumb evolution was sufficient after all, we might recognise that evolution was very smart to have found building blocks that make the problem look so easy.

Interestingly, [Alfred Russel Wallace](#) (who suggested a theory of natural selection at the same time as Darwin) later used the term “intelligent evolution” to argue for divine intervention in the trajectory of evolutionary processes. If the formal link between learning and evolution continues to expand, the same term could become used to imply the opposite.

Richard A. Watson

Alternative views from all camps welcome for inclusion in future issues of the NOWletter.

Tree Survival Research - Susan Laurance

(Thanks to the reader who sent me this circular letter introducing us to this very interesting research – direct link: <https://phys.org/news/2019-01-trees-drought-persists.html>).

In the future, droughts could become more severe or frequent in the tropics. How will this affect species-rich tropical forests?

Since 2013, Susan Laurance has been leading a large-scale experiment to simulate drought in Australia’s Daintree rainforest.

The attached paper, led by Sue’s postdoc David Tng, reveals a surprising finding: the remarkable diversity of strategies by which tropical trees survive, or at least attempt to survive, recurring drought.

These strategies include:

Shrinking their water-carrying (xylem) vessels to make trees less prone to dangerous air bubbles, which form when water is scarce and block the upward flow of water

- Physically blocking off some water-conducting vessels, so that fewer vessels remain to compete for the limited available water in the soil—which, again, reduces the likelihood of dangerous air bubbles
- Altering their woody tissues in various ways, such by increasing fiber content or reducing water-storage tissues
- Growing thinner leaves that demand less water

- Employing a range of physiological tricks (such as more negative leaf-water potentials and lower theoretical vessel conductivity) to enhance water movement

The bottom line: tropical trees evidently have a much greater array of strategies to combat drought than is commonly appreciated. This probably reflects both their great evolutionary diversity as well as the intense threats that droughts pose for tree survival.

William F. Laurance, PhD, FAA, FAAAS, FRSQ Distinguished Research Professor. Australian Laureate & Prince Bernhard Chair in International Nature Conservation (Emeritus) Director of the Centre for Tropical Environmental and Sustainability Science (TESS)

Love by Colin Oliver

(After Kabir)

Kabir says: I will tell you
the secret of love.
The weaver does not weave it,
nor is it grown in the fields,
yet love is for sale in the market.
Go there now: king or beggar,
anyone can afford it,
your money stays in your pocket.
What do you exchange for love?
Kabir says: lose no time,
cut off your head
and take love in return.

The Poetry of Colin Oliver

Three books are available. *Stepping Into Brilliant Air* is a selection of poems written between 1967 and 1999 and may be obtained through the [bookshop](#).

Ploughing At Nightfall, which may be obtained from downstreampress@hotmail.com,

High River, also available via the [bookshop](#), is a celebration of at-oneness with the natural world. The book is sensitively illustrated by Malcolm Ryan.

John Wren-Lewis

From time to time I receive emails asking when John's book *The 9.15 to Nirvana* will be available. Regrettably, I fear the answer is 'never'. After completion of the work and much preparatory to-ing and fro-ing on updates, cover design, etc., the project was abandoned. I don't know why and John died whilst the book was in these final stages so it is a mystery. However, most of what is contained in the book can be gleaned from his various articles which are archived on the Capacitie website.

<https://www.capacitie.org/wren/archive.htm>

I have picked out his Chesterton essay for a rerun. Its first NOWletter appearance was in May 2001. I recently discovered that Slavoj Žižek is quite keen on Chesterton and this essay will explain to puzzled friends why I make such a fuss about 'Spike is best.'

Joy Without a Cause—by John Wren-Lewis

Rediscovering an Edwardian English Giant

*I tell you naught for your comfort,
Yea, naught for your desire,
Save that the sky grows darker yet
And the sea rises higher.*

*Night shall be thrice night over you,
And heaven an iron cope.
Do you have joy without a cause,
Yea, faith without a hope?*

G.K Chesterton: The Ballad of the White Horse

The past decade has seen a world-wide rediscovery of G.K. Chesterton, who raised, in the first half of our century, a whole range of issues which have been recognised as important only today, over fifty years after his death. I have a special tale to tell about him here because I personally rediscovered him not long ago, before I knew anyone else was doing so, when a faint memory of something I'd read in my schooldays before World War 2 seemed to offer a clue to communicating my near-death experience in 1983. Following up that clue turned out to be quite an adventure in the manner of the detective-stories for which Chesterton himself is probably best remembered, and I eventually found he had actually anticipated several modern discoveries about death and dying, some of them in quite an astonishing way.

No-one could have been more surprised than I was by finding that Chesterton's writings were still of real interest. I hadn't even liked him at school, and in later years had totally dismissed him as a long-outdated literary hack who (I thought) attacked science and progress without understanding them, and spoiled even his detective stories by making them the excuse for perversely reactionary Church propaganda through the character of Father Brown, the priest-detective. I came from a home where religion meant the kind of dark superstition which made my mother believe quite literally in God striking a local workman blind for using the oath "Gorblimey!",

and I turned to science with almost evangelistic fervour as the great liberator from such fear-ridden nonsense. The only reason I read Chesterton's books in the school library was simply that they were there, and I, from a home where "reading" was a dirty word, devoured everything in print, like a starving man.

I particularly disliked one novel, a "supernatural thriller" entitled 'The Ball and the Cross', because it actually featured a scientist as its villain, and hinted by calling him Professor Lucifer, that the hidden motive force behind science was nothing less than diabolical. But it was an odd fragment from that novel which surfaced from the mists of memory when, in the weeks following my NDE in Thailand, I was struggling for words to express the extraordinary change of consciousness that had overtaken me and was apparently not going away.

I found myself suddenly understanding, from firsthand experience, what mystical writers of all religions have meant by knowing the world as divine, a creation streaming continually, moment-by-moment, from eternity. Yet precisely because religious terminology like this had meant nothing to me before, I was acutely aware that such language would almost certainly convey totally misleading impressions if I used it. Hunting around for simpler, more direct ways of expressing this extraordinary experience, my mind kept coming back to an incident near the end of 'The Ball and the Cross', and when I reached Australia I hunted high and low for a copy of the book to confirm my memory. It was two years before I found one, in the same old 1910 edition I'd read at school, and yes, there was the statement I was looking for.

It occurs when the hero, James Turnbull, anticipates James Bond in 'Dr. No' by using the ventilation system to break out of a fully automated solitary cell in which Professor Lucifer had imprisoned him. (Here, incidentally, Chesterton was also anticipating another issue which has become important only since his death. Lucifer had used his influence with the medical establishment to get Turnbull, an honest atheist, and a young Catholic opponent, certified as insane and committed to a private asylum because he knew it just wouldn't do to let the public know that anyone took religion seriously enough to fight a duel about it. This was more than fifty years before 'The Gulag Archipelago' in the USSR and Dr. Thomas Szasz in America showed how authorities could abuse mental health laws to put dissidents out of the way.)

Turnbull had been driven literally mad by his confinement—by the bare, hygienic square-tiled floors (with not even a beetle to befriend as in the crude dungeons of old), by the odd pointed shape of the cell, and most of all by a spike sticking purposelessly out of one wall. But when in a moment of lucidity from delirium he manages to break through into the next and identical cell, he finds another prisoner who, to his amazement, is not screaming but quietly singing. We, the readers, know this to be Father Michael, an old monk from the Balkans whom Lucifer abducted in his flying machine in the novel's prologue; after failing to convert him by argument to godless science, and furious at being repeatedly outwitted by the old man's simple logic, Lucifer had thrust him out on to the ball-and-cross above St. Paul's Cathedral in London, which gives the book its title. We have however lost sight of Father Michael since he negotiated the perilous descent to the street and got promptly arrested, long before Turnbull, for being mad in claiming to have come from a flying machine.

So has he too been driven truly mad by that monstrous cell? He greets the appearance of Turnbull's head through a hole in the wall with childlike pleasure, and responds to his enquiry about the cell in a way which isn't at all what our hero expected:

"Good place, yes," said the old man, nodding a great many times and beaming like a flattered landlord. "Good shape. Long and narrow, with a point like this," and he made lovingly with his hands a map of the room in the air.

"But that's not the best" he added confidentially "Squares very good. I have a nice long holiday, and can count them. But that's not the best"

"What is the best?" asked Turnbull in great distress.

"Spike is best," said the old man, opening his blue eyes blazing, "it sticks out".

That expresses the essence of my new consciousness better than a hundred theological terms—the discovery that things can be delightful even when the logic of ordinary life says they're horrible, because their delight consists simply in the fact that they are what they are. I don't stay in that state all the time, and am certainly not going to "tempt providence," as my mother would have put it, by claiming that this "joy without a cause" will persist for me even if I were to be thrown into solitary confinement, or subjected to great pain or great loss. But I can believe the mystics who've asserted that it has done so for them: even in my relatively calm life I've experienced this transformation of painful or nasty experiences in ways which make my mind boggle.

My astonishment at Chesterton's skill in going to the heart of mystical awareness was doubled, however, when I went back to read the novel again from the beginning and found something I'd completely forgotten—that in the prologue he'd shown Father Michael being thrust into that awareness precisely by a near-death experience—not a clinical one like mine, but the other kind where the mind faces an apparently certain death by accident or violence. In describing the old monk's state of mind as he clung to the cross high above London, Chesterton anticipated the findings of modern near-death researchers like Russell Noyes and Kenneth Ring in America and Margot Grey in England, that when the mind accepts death as certain, consciousness can sometimes change gear into "the eternal present". In Chesterton's words, "It is impossible to write" of the ultimate terror, but then it suddenly becomes a wonderful calm:

And of that ultimate resignation or certainty it is even less possible to write; it is something stranger than hell itself; it is perhaps the last of the secrets of God. At the highest crisis of some incurable anguish there will suddenly fall upon the man the stillness of an insane contentment. It is not hope, for hope is broken and romantic and concerned with the future; this is complete and of the present. It is not faith for faith by its very nature is fierce; and as it were at once doubtful and defiant; but this is simply a satisfaction. It is not knowledge, for intellect seems to have no particular part in it. Nor is it (as the modern idiots would certainly say it is) a mere numbness or negative paralysis of the power of grief. It is not negative in the least: it is as positive as good news.

Many of those phrases could come straight from the reports of modern near-death experiencers—“the stillness of an insane contentment... complete and of the present... simply a satisfaction...as positive as good news.” But even more impressive to me was Chesterton’s description of the way Father Michael’s whole perception of the world had changed when he learned, like the mountaineer who falls from a high cliff and lands on soft snow, or the pilot whose plunging plane suddenly rights itself, that death wasn’t going to claim him after all. When, after a more than hair-raising descent, he finally emerged into the London streets—

He felt suddenly happy and suddenly indescribably small. He fancied he had been changed into a child again; his eyes sought the pavement seriously as children’s do, as if it were a thing with which something satisfactory could be done. He felt the full warmth of that pleasure from which the proud shut themselves out, the pleasure that not only goes with humiliation, but which almost is humiliation...Everything his eye fell on it feasted on, not aesthetically, but with a plain, jolly appetite as of a boy eating buns. He relished the squareness of the houses; he liked their clean angles as if he had just cut them with a knife.

Those last two sentences jibe particularly with my own experience, for while my post-NDE consciousness sees wonder everywhere, it is yet in some inexplicable way totally ordinary—and while there is a feeling of humble gratitude for everything merely because I’m privileged to experience it, there is at the same time a paradoxical sense that it’s all just as if I’d created it myself and can say, with God in the Book of Genesis, “behold, it is very good!”

Obviously my young mind must have passed over this part of ‘The Ball And the Cross’ as mere hyperbole when I read it the first time at school, or I wouldn’t have just forgotten it: even the incident about the spike had survived in my memory only because, like the spike itself, it had “stuck out” as an oddity. So now, re-reading the descriptions after my own eyes had been opened by the NDE, I couldn’t help wondering how Chesterton knew about this change of consciousness. Had he perhaps had some kind of NDE himself?

I vaguely recalled reading somewhere long ago that he’d once nearly died of a heart attack at Christmas (a not uncommon fate for those who let love of good food and wine make them hugely fat, as he did from quite an early age!) But when I consulted Maisie Ward’s excellent 1945 biography of him, I found this close brush with death didn’t occur until 1914, four years *after* he’d published ‘The Ball and the Cross’—and there was no hint of any similar incident earlier in his life, either in Ward’s book or in Chesterton’s own autobiography, which was posthumously published in 1936, just after his actual death. Like Father Brown, I felt my curiosity stirring, and that was when my rediscovery of Chesterton really got going.

I began haunting libraries, and one of my first discoveries—a surprise of a different sort—was that scholarly interest in him had revived so much in the past decade that a world-wide Chesterton Society had come into existence, with an Australian branch and a first-rate quarterly journal, ‘The Chesterton Review’, published from the University of Saskatchewan in Canada. This enabled me to read many of Chesterton’s journalistic articles that have never been published in book form, as well as reminiscences from people who knew him and details of his life and work unearthed by literary scholars in many countries, even such unlikely places as Japan.

My first hypothesis was that he might perhaps have been one of those rare human beings who seem to be born with mystical consciousness, though I'd found no hint of it in the autobiography. He undoubtedly had an artist's eye for beauty in unexpected places—he once talked, in a BBC broadcast quoted by Maisie Ward, of experiencing “the mere excitement of existence in places that would commonly be called as dull as ditchwater,” and then added—in a manner absolutely typical of his style, “And by the way, is ditchwater dull? Naturalists with microscopes have told me that it teems with quiet fun.” But that is only a pale shadow of the kind of awareness attributed to Father Michael, and with which I've lived since the NDE.

And as my knowledge of Chesterton's life and work grew, with growing admiration for him both as man and writer, I became more and more aware of one lifelong blindspot which eventually convinced me that his wonderfully accurate insight in ‘The Ball and the Cross’ wasn't a product of firsthand experience at all. It seems, rather, to have been something which in its way is actually more incredible, a remarkable exercise of artistic intuition into an experience he hadn't had first-hand, or at most had only touched. For while he was in most respects the most charitable of men, both in personal life and in controversy, he maintained to the end of his days an exclusive attitude to Christianity which involved condemning other kinds of mysticism as wrong or even evil, and from my own experience I simply can't believe that anyone who has really known mystical consciousness firsthand could do that.

To take just one example, his detective story ‘The Wrong Shape’ introduces an Indian swami as a suspect mainly to give Father Brown an occasion to dilate on the fact that the eastern mystical notion of Nirvana, extinction, must necessarily breed an urge towards destruction. This is a view I would actually have shared in earlier days, for all my disagreement with Chesterton's brand of Christianity, but in my NDE I experienced extinction, the No-thing-ness of Nirvana, the Great Dark, and it is precisely that which continues to be the source of “joy without a cause,” the consciousness which takes delight in spikes simply because they stick out. It is the absolute antithesis of destructiveness, as the story of Buddha makes clear: it is, rather, the very core of the Christian mysticism of which Chesterton writes with such magnificent intuition in his book ‘St. Francis of Assisi’;

The mystic who passes through the moment when there is nothing but God does in some sense behold the beginningless beginnings in which there was really nothing else. He not only appreciates everything but the nothing of which everything was made. In a fashion he endures and answers even the earthquake irony of the Book of Job; in some sense he is there when the foundations of the earth are laid, with the morning stars singing together and the sons of God shouting for joy.

In fact the conclusion I've reached after five years' research into near-death experiences is that the reason why they can open people up, in various ways and to varying degrees, to mystical consciousness, is precisely that the moment of death is extinction—not of consciousness as such, but of separateness. Thanks to modern medical advances, more and more of us today are being privileged to return from that experience knowing, in another magnificent Chestertonian phrase, that deep down under all apparent pain and struggle, “joy is the uproarious labour by which all things live.” And while I doubt if mortal brains are capable of knowing any details of what happens to those who die instead of coming back, those who have once known that causeless joy also know that there is ultimately nothing else.

Chesterton saw this knowledge shining out of the lives of great Christian saints like Francis and Thomas Aquinas and simple ones like the parish priest on whom he modeled Father Brown, and he made it the faith on which he based his life. But because faith, as he shrewdly observed in the passage I quoted earlier, is “somehow at once doubtful and defiant,” he took Christianity as a crusade and almost wouldn’t let himself see (as later Catholics like Thomas Merton saw very clearly) that the same knowledge underlies the eastern religions when they urge practices like meditation in the hope of extinguishing separateness while alive. What interests me, however, is the fact that his poetic genius was somehow able to get beyond mere faith and intuit what knowledge of the ultimate joy must be like with such uncanny accuracy even without actual experience of it.

I believe this is the function of all great art (I find it especially in the music of Bach and Beethoven), and is one ground for hoping that with the new evidence coming from near-death experiences, humanity may one day—perhaps not too far hence—uncover ways to experience the ultimate joy which are less laborious than yogic disciplines and less dangerous than NDEs. That is now the overriding aim of my own studies, and in it I find Chesterton’s writings a continual source of inspiration.

John Wren-Lewis was a research scientist and professor of religious studies. The material in this article was originally broadcast on the ABC program ‘Insights’.

Self-portrait

There's nothing
for me to account for
life is best lived
in my own singular-

each heart throbs
as driven by its desire
alone either in joy or sorrow
none other does know or could measure-

ah, solitude I choose
moments so majestic
the city lights I refuse
I shun the superficial-

if inspiring words
I should find--in my far corner-
the hours would smile
and hold my hand--in wondrous encounter.

Peter Lim