

Paradigm Explorer



The Scientific &
Medical Network

INSIDE

PAGE 3

Death and Destiny -
Henryk Skolomowski

PAGE 9

Is Something Missing in
Psychical Research?

PAGE 13

The Morphogenetic Field
- New Perspectives

2018

NETWORK
CALENDAR

July 6-8

Annual Meeting, Horsley Park – *leaflet enclosed*

September 6

Evening launch of Galileo Commission Report
King's College, London

September 15

Scientia and Sapientia - day conference to celebrate 80th
birthdays of Keith Ward and Ravi Ravindra, Colet House –
leaflet enclosed

September 28-30

Continental Meeting in Bagni di Lucca, Italy, with Laszlo
Institute, *Catalysing a Paradigm Shift* – *leaflet enclosed*

November 3-4

Beyond the Brain 2018 – CentrEd at ExCel in East London
– *leaflet enclosed*

November 5

Sacred Acoustics Workshop with Dr Eben Alexander III and
Karen Newell – *leaflet enclosed*

November 17

The Quest for Harmony: A unifying principle in spirituality,
science, sustainability and healthcare - 70th Birthday
Celebration for HRH the Prince of Wales – *leaflet enclosed*LONDON - CLAUDIA NIELSEN – 0207 431 1177 or email claudia@cnielsen.eu

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

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

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

UPCOMING EVENTS

MAY Monday 14th

DR. LARRY CULLIFORD Seeking Wisdom: A Spiritual Manifesto

JUNE Monday 11th

PROF CHRIS BACHE Diamonds from Heaven: a 20-year journey
into the Mind of the Universe

JULY Monday 9th

DR. IAIN MCGILCHRIST There are no Things

AUGUST Monday 6th

SIMON DUAN PhD Digital Consciousness and Platonic
Computation – Unification of Consciousness, Mind and Matter
by Metacomputics

SEPTEMBER Monday 10th

DR OLIVER ROBINSON The Seven Harmonies of Science
and Spirituality

CONTENTS

EDITORIAL

Returnings	<i>Paul Filmore, Chairman</i>	2
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ARTICLES

Death and Destiny	<i>Henryk Skolimowski</i>	3
Henryk Skolimowski – dissident son of western civilisation	<i>Paul Kieniewicz</i>	7
Is Something Missing in Psychical Research?	<i>Michael Grosso</i>	9
The Morphogenetic Field --- New Perspectives	<i>Paul Kieniewicz</i>	13
Bad Science, Lasting Legacy	<i>Beata Bishop</i>	17

PERSONAL REFLECTION

Music and Clay, Notes and Forms	<i>Catherine Thom</i>	20
Waiting to Die	<i>Kenneth Ring</i>	23

REPORTS

Beyond the Brain XII	<i>John Clarke</i>	26
Transformative Innovations for Health	<i>John Kapp</i>	29

NETWORK NEWS

Network News	31
Members' News	33
Local Group News	33
Members' Articles	35
News and Notices	36

BOOK REVIEW SECTION

Science/Philosophy of Science	37
Medicine/Health	39
Philosophy/Spirituality	44
Psychology/Consciousness Studies	48
Ecology/Futures Studies	53
General	57
Books in Brief	60

Notice to Contributors

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

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Cover: Urdini Lakes, Rila Mountains, Bulgaria, August 2017 - David Lorimer



Returnings

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

Each April I await the gentle chitterings that herald the arrival of the first returning swallows of spring. After an epic journey across the planet from South Africa, enduring the challenges of the Sahara and then of man, they arrive tired and contented outside our window. After a short rest, they are busy renovating their old nest, where, for hundreds of years, swallows have been at home. And after some weeks, we have the joy of wakening to the swallow family on the phone line outside the bedroom window, chattering companionably in the dawn light, until the warmth of the sun inspires them to launch off and seek their breakfast.



I used to be sad when, with the cooling of the year, suddenly, one day, they were gone. Now I know it is part of the wheel of life, and that their absence only makes their returning, so much more of a celebration.

There is, however, another aspect, as man has greater influence on this world; the returning becomes less certain. Yes, there are natural cycles of many types, but we need to readdress our influence. The returning is not a given; and so we must appreciate what we have, and cultivate respect and humility.

Each April some of us arrive back at the Mystics & Scientists conference, for yet another year (41st annual conference this April). Why do we do it? There is no doubt that coming to a conference regularly is a type of pilgrimage, requiring one to drop one's day to day life, and travel perhaps some considerable distance. Then, on arrival, there are recognisable faces, with whom we can become reacquainted, and we can catch up with our past year's story. Also, arriving at the conference is like arriving at a known location, not necessarily the physical address, but to a homely format of accommodation, lectures, meals and activities. But again, why do it? Perhaps, like the swallow, there is familiarity, but deeper surely is continuity. We need continuity to build, to deepen. Yes, perhaps we can on occasion indulge too much in intellectual deepening, but there is also the life/ spiritual deepening that only comes with commitment, learning and reflection, within a space that is safe for this to happen.

Again, one could ask, why do we, the SMN, run a similar conference year after year? Perhaps better to ask, why are some people prepared to give their time to this venture regularly? Well again, I believe, we feel the rightness of continuity and self-growth, and that the

world needs opportunities to be created, which support this functioning. To those people who intuitively know this work is important and thus dedicate their time to making this happen, may I give my heartfelt thanks. To those members who migrate back to the conference, year after year, may I also give my heartfelt thanks, that you like myself, appreciate the importance of our returning.

*SWALLOWS travel to and fro,
And the great winds come and go,
And the steady breezes blow,
Bearing perfume, bearing love.
Breezes hasten, swallows fly,
Towered clouds forever ply,
And at noonday, you and I
See the same sunshine above.*

*Dew and rain fall everywhere,
Harvests ripen, flowers are fair,
And the whole round earth is bare
To the moonshine and the sun;
And the live air, fanned with wings,
Bright with breeze and sunshine, brings
Into contact distant things,
And makes all the countries one.*

*Let us wander where we will,
Something kindred greets us still;
Something seen on vale or hill
Falls familiar on the heart;
So, at scent or sound or sight,
Severed souls by day and night
Tremble with the same delight -
Tremble, half the world apart.*

Robert Louis Stevenson



Death and Destiny

Henryk Skolimowski



We learned of the death of Professor Henryk Skolimowski while at the Mystics and Scientists conference in early April. He sent this powerful poetic meditation in over a year ago, and it seems appropriate to print it now. He devoted the last few years of his life to elaborating a philosophy of light, inventing new terms like 'lumenarchy' in the process. Now he is taking his own journey into the Light and we wish him every blessing on his new stage of adventure into higher consciousness.

There is no Death

Death does not exist.
Only life exists.
When life is ending
We are departing.
We depart because
Everything is departing
Continually.
After your departing
There is nowhere to go.
There is only returning
To Light.
This is the most important truth
That you want to remember.

Don't Listen to Theologians

Do not listen to twisted arguments
Of theologians and preachers.
They are ensnaring you
And making you a slave.
You were born free
And you want to die free.
Spiritual life should be
Your ladder throughout your life.
The search for freedom is a search
for Light.
It is not a journey of dogmas.

From Light to Sacred Light

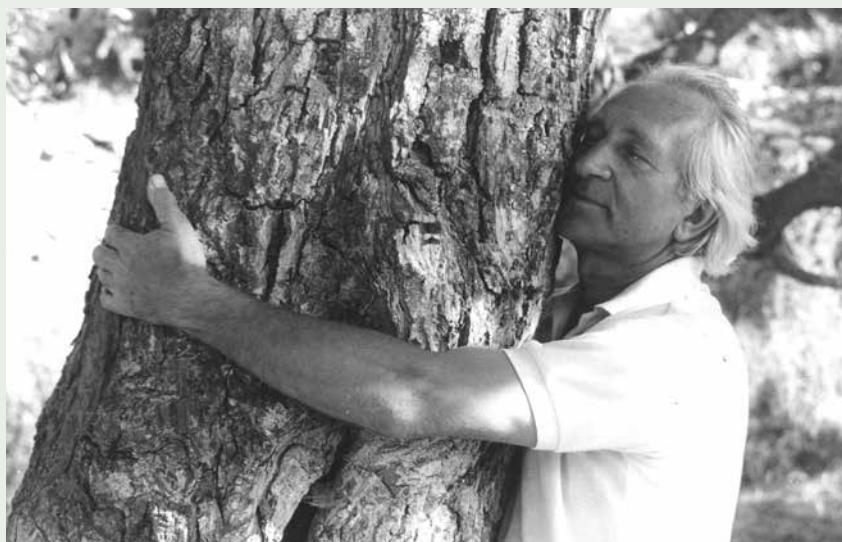
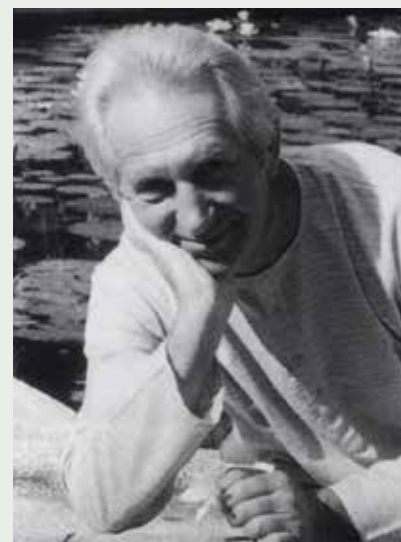
There are some reminders to hold in mind:
From Light to human light.
From human light to transcendent light.
From transcendent light to sacred light.
When sacred light is achieved
We return to the original light.
The journey is from light to light.
There is no other.

The Human Should Aspire to be God Like

There are some religions
Which reduce human beings to worms.
They flatten human dignity and greatness
And make humans completely subservient.
In these religions it is hardly possible
To achieve the sacred status
And merge with the Great Light.
There are some other religions,
which postulate
That the human is a divine being.
This being should aspire to become god.
In these religions it is easier to become
sacred
And then to merge with Great Light
effortlessly.
When you imagine yourself to be god,
It is easy to depart from this realm
with grace.
When you succumb to the idea that
you are a suffering worm,
You usually depart amidst anguish
and sulking.

Nirvana is on the Earth

The paradise or Nirvana is a human
invention.
It is not to be found in heaven.
It can only be found on earth.
You can create it through your magic
imagination.
Your paradise can be as stupendous
and deep
As your creativity and your will.
Imagination is stupendous.
Imagination is the most divine of
human inventions.
It is here that your paradise resides.
"For the man of Imagination
Reality is imagination itself." (Blake)



Sokrates on Philosophy and Death

Sokrates maintained that philosophy
Is training for death.

We have admired this insight
But somehow forgotten its deeper
meaning.

Sokrates called his philosophy
Eudemonism.

Its purpose is to create life leading to
happiness.

Virtuous values quite naturally lead to
Good life and peaceful death.

Philosophy and the Dumb Atom

Since Sokrates many other philosophies
were invented.

And so many of these philosophies
Have been indifferent to human
vicissitudes.

Instead of glorifying the human,
They worshipped the dumb atom.
As the result, philosophy has become a
tableau

For describing the superficial and the
tedious.

Also, philosophy has become
contemptuous

To human destinies and human happiness.

In reciprocity, the humans
Became contemptuous to philosophy.
They found it boring

And not serving any deeper purpose.

We can see how the circles has been
closing itself:

From a barren conception of the universe
To a barren conception of philosophy
To a barren conception of human beings...
And then to the sense of helplessness
and despair.

You Cannot Blame Philosophy

You cannot blame philosophy for
everything.

But you need to notice that

If philosophy does not help human beings,
They are adrift, lost and sometimes
desperate.

Religions have shown their inadequacy
long time ago.

Supermarkets with their glittering gadgets
Are a circus for puppets.

They are good for superficial laugh.

When death arrives, what is left?

Only panic, bleakness and naked despair.

The Problem with the Unseeing Mind

Philosophical thinking, on the
fundamental level,

Is not just philosophy or ordinary
thinking.

It is contemplation on life and death.

Can ordinary people do that?

Yes, because of the subject matter: life and
death.

If they wake up to their true spiritual
condition,

They will sweep out the superficiality of
their pseudo life

In favour of the contemplative life style.

What if they continue in their consumptive
stupour anyway?

Then we have a problem.

But THEY have a bigger problem.

In their unseeing, they seem to be leaving
The human condition behind.

The Seeing Philosophy

Can philosophy play a leading role
In reconstructing human destinies

So that we are living in grace and dying
in peace?

It can; perhaps it even must.

There are no other forces that can do it.

Only philosophy is impartial and powerful
enough.

Both religion and science are tainted

By vested interests, which they serve
clandestinely.

For all its alleged objectivity, science is so
partial.

It is a form of ideology and a disguised
religion.

Thus philosophy must be our guide.

Philosophy has served this purpose in the
past.

The examples of Sokrates and Plato
Are luminous enough.

We have the right to follow them

But judiciously and deeply.

Plato's Quiet Departure

Plato did have some quarrels with the
Athenian Democracy.

Yet he lived a measured and harmonious
life.

When he was 80, he was invited to a party

By his disciples and friends.

Then he dozed in a comfortable chair for
a while.

At the end of the party

When other guests were leaving

They realised that Plato was gone.

A peaceful and commendable way of
departing.

The Abrupt Departure of Sokrates

Sokrates's departure (at the age of 70)
Was altogether less wholesome.
He was ordered to drink hemlock
For his alleged misdemeanours.
He could have escaped but he decided not to.
He drank the wretched potion
In the presence of his followers
In a peaceful and determined way.
This was not only a peaceful departure
But one that reverberates in the consciousness
Of so many people during the last 25 centuries.

Every Life is Utterly Unique

These two examples may not be
Convincing to ordinary people.
But there are no ordinary people.
Each and every human being is unique.
And every life is utterly unique.
Yet at the end of their journey some people
Are seized by the terrifying fear of dying.
And nothing seems to be able to alleviate this fear.

Life is your Responsibility

Does that mean that philosophy is useless?
No.
Philosophy may help you during your life
*So that you don't arrive in your last stages
Broken and seized by despair.*
You cannot be careless during your entire life
And then hope to arrive in the peaceful frame
In the last stages.
Life is your responsibility.
And so is your death.

Treat Yourself Seriously

What should you do first of all?
Treat yourself seriously.
You are such an incomparable jewel of the universe.
Keep shining to the very end.
This is a good way to arrive:
Shining and joyous, joyous but serious.
Throughout your journey, try to remember:
Do what is right. Don't do what is wrong.
Keep your dignity high. Discard the trivial stuff.
Don't allow yourself to be down-trodden.
Light will help you, if you help it.

The Meaning of Death

Yet you also want to know what is the meaning of death.
Well the question: what is the meaning of life is difficult enough.
The question: what is the meaning of death is impossible.
There is only the question. There is no answer.
We don't even know which way to look for a possible answer.
There are many questions, which are unanswerable.
But the question about death is of a different kind.
Simply because death is beyond the realms we can know.
Perhaps we should give up our search.
For strange psychological reasons we cannot.
If you never contemplate your death
You cannot come to terms with the meaning of your life.
Deep thinking about death clarifies
Your appreciation of the beauty of life.

A Human or a Cabbage?

What about those who are completely mindless
About the meaning of life and death?
If they are still within the range
Of those we call "human beings,"
They must have some flashes of awareness
That the end is coming.
To be human is to reflect.
You cannot escape some reflection on things ultimate.
Now, let us say it, if you are *completely* void
Of all reflection, you are a cabbage, not a human.

Frail Human Condition

The human condition is so frail.
We are afraid of many things and phenomena.
On the top of it, we are anxious
If not terrified about our ultimate destinies.
Metaphysical anxieties are eating us daily.
Who will save us, in what way and why?
Is there such a saviour?
What is the meaning of salvation, anyway?
Who will answer this question for us?
Is there hell? Is there heaven?
How can we know?
Religions are not reliable guides
And their answers are superficial.
They are mainly concerned

With their own interests.
And not with our crying souls.
Yet, these ultimate cursed questions
Have to be answered.
Or perhaps they can be by-passed
If you have enough wisdom and will.

Neither Heaven Nor Hell

We must have the courage of our deepest truths.
We must realise
That heaven and hell are poetic fictions.
Created by our anxieties.
And even more so by religious orthodoxies
By which we have been browbeaten to submission.

The Courage to See

There is no proof that
There is either hell or heaven;
And there is no disproof either.
You simply must have the courage
To see deeper and deeper
Into the bowels of the cosmos
And into the depth of your soul.
You must think of the freedom you would have
When you are liberated from the tethers
Of nonexistent hell and heaven.
And when you are able to embrace
The limitless horizons of Light.
Also imagine that the freedom
You have longed for is around the corner.
This is the freedom of your deepest self.

Who is the Saviour?

We must be clear-sighted, independent and courageous.
Yes, yes, yes...but are we not entitled
To receive some help from somewhere?
Are we not entitled to some saviour
Who would deliver us in a big way?
The whole idea of the Saviour is a fraud.
The term 'saviour' should be eliminated
From our vocabulary
Because it conceals a hidden dependence
On the Big One.
And it implicitly suggests our slavery.
Gurus who help us too much incapacitate us.
It is even more us with 'saviours.'
Our courage must include our determination
To be our own saviours.
Our spiritual autonomy is the most precious thing.
It saves us from 'saviours.'
We must be uncompromising about our destiny.

Near Death Experiences

Near death experiences
Are invariably encounters with Light.
We have to be very careful
How we talk about them.
We don't yet have an adequate language.
The language of light, on the other side,
Is beyond us.
There is indeed something extraordinary
About near death experiences.
You should treat their meaning
With great care. But also remember
That you don't have to go through
NDE (Near Death Experience)
In order to meet your Greatest Friend
Which means your Inner Light.
The experience of Big Light does not have
To arrive on the wheels of NDE.

The Riddle of Consciousness

We are all acquainted with human
consciousness,
And yet we know it so little.
We distinguish high consciousness
And low consciousness, which is a devise
To separate morons from super
intelligent beings.
We distinguish ordinary consciousness
From cosmic consciousness, which is
fine again.
But these distinctions are linguistic
crutches—
In the situation in which we don't know
What consciousness is and who can
define it.
Consciousness is a truly miraculous gift of
the universe.
Furthermore, *all consciousness is cosmic*
Whether of worms, eagles, Einsteins
or gods.
What happens to our consciousness after
we travel
To “the other side,” we don't know.
May be what we shall merge with
Is a form of light inaccessible to
description.
May be it is only by being in this light
That we shall be able to understand it
But not in our present sense of
“understanding.”
We should be prepared to live with
cosmic riddles.
This is what our human condition
demands.
We should not rush to explain
In our present limited language
These ultimate things
Which are clearly beyond our reach.

Life Is Not Maya

Do life and death form a strange unity?
With death being a back-seat driver?
That would not be right.
Our freedom, authenticity and creativity
Would be then denied.
And our life and its meaning
Would be just Maya.
But this is not so.
Mind can be treacherous at times.
Thus life can be slippery.
But this is not the end of the story.
The main story is the lucid mind.

Life Loves Life

Our mind, in fact, is the glory of our
existence.
This is how we should view it.
There are some shadows around us.
Some are apparent and some are hidden.
But we should not concentrate on them.
We should not seek them.
Shadows may be indeed premonitions
of death.
But we are here to celebrate life.
And we should remember that *life*
loves life.
For this reason we are so partial to it.

Our Language Is a Problem

Our language is often inadequate
To express our great insights on life
and death.
We know more than we can express.
Is it the fault of our language or of
our mind?
Or is it the inscrutable subject matter?
Should we keep banging our heads
Against the wall in order to understand?
Is death beyond our understanding?
Should we accept it as such – a riddle?

Spiritual Life –So Important

How do we sort out our life
In this complex and chaotic world?
With deep wisdom and great
determination.
We never must give up that which is
Most precious in our spiritual life.
Spiritual life is our shorthand
To deliver us to the life of grace
And to allow us to die peacefully.

Accept This World

For all its imperfections this universe
is good.
So feel comfortable in this world.
It has so much to offer
In spite of some bruises and sufferings
you endure.
There is no possibility to jump to another
universe.
If you did, it would only be at the expense
Of completely losing your identity and
existence.
If you lose your existence, you are
nowhere.

Light is the Greatest Miracle Maker

Human consciousness has been
constructed
For the universe, which is governed
by Light.
Our consciousness is a peculiar form
of light.
Jumping between various universes
While still preserving human
consciousness
Is just a fiction or a science fiction.
The meaning of light explains your being
And all there is in this universe.
You don't need to be tortured
By the spectacle of death.
Try to understand the essence of Light.

Light is Immortal

Light is immortal and you are a part of it.
Remember the great cycle of returns:
It is from Light to Light.
After you depart from the earthly life
There is nowhere to go
There is only return to Light.
You must try to embrace your light
As passionately as it embraces you.

Epilogue

In so far as you are made of photons
You are immortal.
Be free as the lily in the fields.
Listen to the rhythms of the endless
photons.
Listen to the cosmic music in you.
These cosmic connections are all
important.
Your life and your departure are cosmic
phenomena.
Don't look at yourself as a small being
But always as a cosmic being.
Because only then you will have a right
Perspective on your destiny
And a right passage through your life.



Henryk Skolimowski – dissident son of western civilisation

Paul Kieniewicz

Philosopher and ecologist Henryk Skolimowski died in his hometown of Warsaw, Poland April 6, 2018. Henryk inspired generations of ecologists and conservationists. He was professor of philosophy at the University of Southern California, and the University of Michigan in Ann Arbor where he taught his system of eco-philosophy. The author of over two dozen books in English and in Polish, he conveyed the vision of the world as a sanctuary. He taught that a society must be grounded in its ecological context in order to grow and to flourish. He would refer to himself as “a dissident son of western civilisation”.

I was born in a wrong country and at a wrong time is the opening line of his autobiography, *The Lotus and the Mud* (2011). The date was May 4, 1930. During the war, he participated in the Warsaw Uprising. He began his studies as an engineer in Warsaw, but soon switched to philosophy. A student of Tadeusz Kotarbiński, he wrote his master's thesis on the philosophy of language. Seeking freedom from the prevailing Marxist ideology he left for the UK in 1959, and received from Oxford University (St. Anthony's College) one of the first scholarships for foreign students. After writing an article on Marxist philosophy he

was blacklisted for a passport, and was only able to return to Oxford to complete his work thanks to the political influence of his mentor Kotarbiński. His doctoral thesis, on Polish Analytical Philosophy, was submitted to Oxford University in 1964. He emigrated to the United States where he taught at the University of Southern California (1964-1970), then as a full professor at the University of Michigan in Ann Arbor.

He developed a non-analytical philosophy that looked at the causes of conflict between western civilization and nature. In 1974 he published his manifesto, *Ecological Humanism*. Rejecting both Marxism and Capitalism as having built a destructive civilisation, he built Ecological Humanism on the view that the world is a sanctuary. We are not here to govern and to exploit, but to maintain and creatively transform. To carry the torch of evolution. Our age is an age of stewardship. Knowledge is an intermediary between us and the creative forces of evolution. Ecological Humanism is a counterbalance to the destructive forces of industrialisation that tend to debase mankind. Unlike other ecological movements that emphasised activism, Skolimowski spoke of the need for personal transformation.

He writes,

To fulfil human potential is to transcend our present condition, is to fulfil the requirement of evolution, is to adapt the idiom of frugality which is a precondition of inner beauty, is to assure our short-term and long-term survival. Out immediate and long-term biological and environmental survival depends entirely on our capacity to remake the world from within. (Ecological Humanism).

After 1989, Henryk spent more time in Poland, where he established the Society of Friends of Ecological Philosophy, and the Chair of Ecological Philosophy at the University of Łódź. Among Polish academics, his unconventional philosophy was received with hostility. He found more acceptance among the public with the publication of *The Participatory Mind* (1995) and *A Sacred Place to Dwell* (1993). During his last ten years Henryk moved in a decidedly more mystical direction, with the publication of his last book, *Let there be light- The mysterious journey of cosmic creativity* (2010). He saw light in both its physical and symbolic aspect as embodying ultimate reality and the numinous. To express this vision, he created marble sculptures that he saw as embodiments and expressions of light.

About his philosophical legacy, he sees his contribution in three areas:

Articulating a new philosophy whose purpose is to systematically transcend all mechanistic philosophy.

Articulating a new kind of language, which goes beyond “cognitive” language and which enables us to see beyond the confinements of mechanistic traps.

Preparing the ground for the resurrection of Socratic living wisdom philosophy as a new departure for all philosophy. The human being has been forsaken if not downtrodden in most systems of modern philosophy.... Hence the urgency of the Socratic renaissance to bring about and enshrine the axis mundi of the human as the alpha point of all our pursuits; while continually remembering that this human is not a selfish individual but a cosmic being.

(The Lotus and the Mud).

David Lorimer adds:

Henryk was a good friend, an inspirational presence, larger-than-life, a true global visionary. I met him first about 30 years ago at one of the meetings on the Unity of the Sciences, possibly in Delphi, an appropriate sacred place with its connotations to the origins of Western civilisation. He had a natural enthusiasm and zest for life, and used to spend his summers on the Greek island of Thassos at a place he called Theologos.

His independence of thought emerged early on, and he recalled his youthful encounters with Sir Isaiah Berlin and Sir Karl Popper in Oxford and London respectively. He had an

original turn of mind, thinking things through from first principles and articulating a new worldview, as Paul explains above.

He was already a Member of the Network when I took over in 1986, having been invited by George Blaker on the strength of his writings. His 80th birthday celebrations in Poland in 2010 were a great occasion, and he was awarded honorary membership at that time. He continued to develop his thinking about light into old age, as readers will appreciate from his poem in this issue. One of the last touching messages I received from him, apart from his New Year greetings, was in October 2016, which I reproduce below:

Dearest David,

We have been thinking of you often and profoundly.

Life is difficult. And I have experienced some difficulties in getting older. But in the midst of this experience, you are on my mind and YOU are great!

As the ancient poet of Thassos. Archilohos, so expressed:

“Life is short, Art is long, and Experience difficult.”

These days, my life seems to reflect the truth of this ancient statement in a high degree.

David, your love and support has been immensely important to me.

Love and Light always,

Henryk

I will remember Henryk with great affection and respect.

REACH FOR THE STARS

By Henryk Skolimowski
(SMN)

SMALL
ASPIRATIONS
A SMALL PERSON

GREAT
ASPIRATIONS
A GREAT PERSON

BE GREAT
REACH FOR THE
STARS

If you do not reach for
the stars

You are not fully mature.
Small concerns will never
make you

A great person, but only
a fledgling.

Become Mature!

This is the imperative of
your destiny.

This is one of his handmade
sculpture donated to the Sichów
House and Library in Poland.





Is Something Missing in Psychological Research?

Michael Grosso

Philosopher Michael Grosso considers the history of psychological research and its uneasy status within academe owing largely to the materialist ethos that has come dominate both intellectually and politically. He argues that psychological research has something valuable to offer a new world view and offers a number of potential story lines to that effect.

The challenge of physical science

Ever since the rise of modern physical science in the 17th century, resistance to the traditional belief in the reality of soul and mind has grown. Among the educated classes, the belief in a life after death is in decline. With the triumph of technology, we have moved more deeply into an age of philosophical physicalism.

There has, however, been ample criticism of this reductive turn, often from scientists. In fact, there's a tradition of empirical-minded challengers to the popular creed of scientific materialism. It has long been observed that events sporadically occur in ways that violate our expectations of what is physically possible. The need for a systematic study of these phenomena eventually crystallised into the founding of the English Society for Psychical Research in 1882.

I use the expression *psychical research* broadly to cover a wide range of extraordinary experiences, paranormal and mystical. The common feature is their transcendent character; they appear to exceed the limits of known physical law. There is a long-lived, mainstream tendency to ignore these anomalies.

The historical record, as far as I can make out, points to a constant relationship: there is the evolving Science with a capital S and a relatively small group of outliers who profess allegiance to the importance of psychical research. As far as our "educated" authorities, for the most part it is dismissed as deviant and fringy.

Still, we always find some heretics, even among the founding members of the British Royal Society such as the chemist Robert Boyle and Joseph Glanvill who wrote a book called

The Vanity of Dogmatising. In the 18th century, there was Mesmerism and its "higher" phenomena that disturbed the establishment. The 19th century of materialism triumphant saw the birth of Spiritualism and European psychical research. In the 20th century, the Rhines' American parapsychology resisted behaviourism; Freud, Jung, Gardner Murphy and others acknowledged the paranormal, and kept the landscape of the mind open.

As for the situation today, it still corresponds to the early pattern: a minority of outliers, often distinguished in their fields, largely ignored by the dominant power structures, the prelates and the professors, the church and the university, and usually, the press.

At every stage in this historical development, some have been optimistic about psychical research bearing great fruit. The circumspect William James, however, claimed progress more likely to be very slow, measured perhaps in centuries, not decades.

The situation today

Knowledge in the field has surely grown, but the status of psychical research, compared to that of the established sciences, remains unchanged. It rarely gets a fair platform, as do sports, politics, economics, the arts, medicine, and all the sciences.

Reasons for this are obscure. First, there's the huge cognitive dissonance it seems to engender, challenging the metaphysical identity of science and perhaps of scientists. If only there were repeatable experiments, some have said, established science would be more welcoming.

Questions today are asked about replicability in *all* domains of science, and nature can be perverse in the way she responds to our scientific proings.

However, psychical research *does* offer repeatable experiments, but very rarely repeatable *on demand*. Phenomena like telepathy and psychokinesis have repeatedly been produced experimentally, by different subjects and in different contexts. Even shocking macro-PK such as levitation has repeatedly been observed, for example, in the most famous case of Joseph of Copertino, for which we have ample eye-witness testimony, 35 years running.

Psychical research has amassed an enormous amount of data that is of great practical and theoretical interest, but remains an illicit field of study. It is the vanishingly rare university in the United States where the subject is studied.

What's missing, some say, is a theory that explains, predicts and controls the wayward phenomena. But psychic phenomena are not so well-behaved. When I met Dr. Emilio Dido, who was once Padre Pio's physician, I asked for his opinion of psychical research. Dr. Dido spoke of "psi" as "a rebellious reality," and smiled ruefully at me, as if to say, "Good luck!"

There seems, in fact, something wilfully perverse, "evasive," as researchers have often noted, about psychic phenomena. Clearly, their baffling elusiveness, more than once noted by William James, resist efforts to theoretical domestication. I doubt that any one theory could be the tipping point whereby psychical research crashes through its 400-year-old ceiling. The fact is there are good theories and experimental paradigms that work, and which have produced interesting results. But in spite of all the good work done, the underdog status of the field as a whole remains intact.

More research, repeatable experiments, more penetrating theoretical constructs are all desirable and crucial to progress. But none, I believe, is likely to succeed in shattering the wall of corporate materialism, which dominates the academy, as well as politics, militarism, economics, and global trends.

The problem is not just academic or intellectual. The words *materialism* and *materialistic* need be distinguished. Materialism is a metaphysical belief; materialistic is a morally tinged term, suggesting a default preference for material solutions, explanations, aims, values. Economic and technological forces have "disenchanted" the world, as Max Weber thought, the result of capitalism becoming entangled with the rise of material science.

Psychical resistance and the need for story

Psychical research is a stubborn hold-out against this ever-creeping disenchantment. Still, is something missing in the current paradigm? Why has it for the most part failed to captivate the wider public imagination? In my opinion, a story is missing. What seems missing is a vision, a worldview to help us breathe life into the motley mass of collected data. Lacking are stories that unify the project of psychical research; in human terms, stories that make explicit its aims and benefits. Stories were the natural *modus vivendi* of psi before modern science.

For most of history, the "psi factor" in nature was part of a person's or culture's life story. It played a crucial role informing a worldview, a practice, a mythology—or a religion. It made a difference to daily perception, expectation and behaviour. Whether through magic, religion, or the arts, the "data" always *meant* something important. It was not a question of anomalies, or counter-examples, or evidence for or against a carefully framed hypothesis. It was part of the unspoken art of how one improvised life and death.

Needless to say, the psi-laced narratives of pre-scientific times have for most educated people ceased to be credible. The creation stories may be dismissed as just word-magic, and have no place in a scientific worldview. Much of the old language carries undesirable connotations. So people now say they are spiritual but not religious. Organised religion suggests dogma, intolerance, violence. Some of the worst crimes against humanity are routinely justified by religious claims. In contrast, the term *spiritual* has been granted a positive sense, and is seen as compatible with science.

The primacy of experience

But now, *whatever* the prevailing worldview, people continue to have experiences with the earmarks of transcendence. Sometimes the language may be lacking for describing a specific experience. A man, for example, related to me an experience in which he fell off a fast-moving boat; trying to grab hold of anything to break his fall, he felt something slowing his movement, which enabled him to grab a cable that stopped him from being swept under.

The remarkable part of the story is that two witnesses on the boat reported that they *saw* their friend hovering in space as he reached for the saving cable. The person who told me this story admitted he was reluctant to discuss it in public. The best word he could think of to describe his experience was "miracle." But he felt embarrassed to use that term.

The idea that gravity is malleable and sometimes behaves oddly in ecstatic or other extreme mental states, suggests that the experience was neither miracle nor illusion—but something yet to be explained. Call it, if you prefer, a type of transient levitational episode. Dale Allison, professor of religious studies at Princeton University, has summarised modern cases of transient levitation of this sort in a report. The story of the man who fell off a boat was one of similar stories I heard after publishing *The Man Who Could Fly*, a study of the famous levitator, Joseph of Copertino.

New stories of transcendence will come from our new experiences. The poet Lawrence Ferlinghetti once said that in modern times each of us has to create and live our own myth. Frederic Myers, one of the founders of psychical research, coined the term *telepathy*, and another important word, *mythopoeia*, or myth-making.

Myers' *telepathy* has had a thriving life since its inception, but not his coinage pertaining to the mytho-poetic. Again, from a different perspective, what seems missing from psychical research—the mythopoeic spirit. But not completely. I can think of three great masters of modern mythopoeia—William Blake, William Butler Yeats, and Walt Whitman. Each of them created their poetic mythologies from their psychical adventures.

We don't need to be great poets to explore meaning and transcendence in our experience. Several ideas come to mind of stories that might advance psychical research. Each might be a chapter in a book, or a book itself. All I can do here is list some possibilities to illustrate my suggestion more concretely, that there is a need for stories that invest psychical research with purpose, stories that practically engage our presumptive higher potentials.

Possible Stories

A New Health Care Paradigm—what comes to mind at once is the need for a new health care paradigm. In America, the richest nation on Earth, the health care system is ranked below all the rest of the advanced economies. The cost of serious illness can destroy you financially unless you are rich. Among the greatest dangers to your health are those that come from the medical establishment itself: hundreds of thousands die annually from medical error. America is in the midst of an opioid epidemic that is killing more citizens annually than were killed in the whole of the Vietnam War. The epidemic is in large part caused by the pharmaceutical industry with complicit medical practitioners for whom profit is the crucial value.

A new healthcare paradigm would still deploy the best of mainstream medical science. But it would do so selectively and critically. A feature of the new paradigm would be its emphasis on the importance of noninvasive, spiritual, and self-healing potentials such as prayer, fasting, meditation, dream incubation, trance-dancing, and other traditional methods of health-care. The new paradigm would favour a health-care system in which parasites like Big Pharma are starved to extinction. There is much movement in this direction already, evident, for example, in the books of Larry Dossey, ranging from his best-selling study of prayer (*Healing Words*) to the prescient *Reinventing Medicine: Beyond Mind-Body to a New Era of Healing* (1998). Psychical research in service to a new healthcare paradigm; this would be my first choice of a story.

Search for an Afterlife – psychical research has produced a significant body of evidence that points to the real possibility of life after death. But this is not generally known. Making it known is part of a big story that needs to be told. In our age of scientific physicalism, incredulity about posthumous survival seems almost inevitable. The dramatic shift toward materialism has created a vacuum of meaning regarding life and death. Reductive scientism provides a depressing picture of the human condition: a tale told by an idiot signifying nothing.

Psychical research has furnished evidence that points towards the continuity of consciousness after death. In light of information so garnered, a new story of life and death—one with a transcendent twist—becomes possible. This second story-line of psychical research seems also to qualify as part of the new healthcare paradigm discussed above. C. G. Jung wrote of the psychic need for a story about death. To become reasonably functional individuals, the idea of death needs to be woven into our sense of self.

Ernest Becker's (1974) classic study shows how the "denial of death" (title of his book), rampant in modern culture, distorts the human personality, even whole societies. Consumerism and inordinate greed for wealth and power illustrate the dialectic of this repression. The denial of death impairs our capacity to live, causing us to contract from life because of fear of death. This fear so disfigures us, Becker argues, that we can easily slip into the clutches of rogue agents.

Becker concludes his book with a grim warning; science must figure out a way of deconstructing the denial of death or risk failing to prevent the suicide of the species. It never occurred to him, as

it did to Frederic Myers, that psychical research might provide the basis of a new mythology of death and transcendence, a view more conducive to psychological health.

Links to the Theory of Evolution?—is there a link between psychical research and human evolution? This question leads to another story. Psychical research may be viewed as a story about the next step in human evolution. The entire spectrum of supernormal mental and physical phenomena enable us to form a picture of the next stage of evolutionary advance.

The advance would mean a major refinement of our sensory and motor capacities. Extrasensory sensibility would be normalised, integrated with sensory life. Our psychokinetic potential would also in some clearly discernible sense be extended beyond the limits of normal motor capacities. What problems our heightened faculties may bring we can ignore for now.

In this snapshot of the new phase of our evolution, based on projection of latent potentials, we must include mystical and ecstatic states. As is known, phenomena like levitation and bilocation are reportedly byproducts of certain mystical states. There are many ways to imagine the course of this more evolved humanity, and how it might affect society at large. The main story-idea here is to read the realm of psi phenomena as indicators of the unfinished story of human evolution.

Social Critique—My next suggestion may sound a bit novel for this field of inquiry. Thanks to our information and communication technologies, we're living through a period of accelerating change. Psychical research provides a platform to resist the triumphalism of technomaterialism. There is, after all, a certain idolatry of physicalist science. Most social critics (from Marx to Marcuse) are themselves materialists, albeit of the "dialectical" sort. But if we mean to critique the evils of capitalism and the excesses of technology, we need to throw off the shackles of philosophical materialism.

The critical task is not just academic; it examines the functioning values, secret manoeuvrings, devices of distortion (law, propaganda, advertising), whatever forces mould a society where materialistic values predominate over human values; where power and profit overshadow meaning and dignity. Critique sometimes shades into resistance, as when Wolfgang Pauli refused to join the Manhattan Project whose purpose was to make atomic bombs.

The Art of Living—One last suggestion on how we may bring psychical research to life, use it perhaps as an ally in the art—the task—of living. Psychical research affords us with material for re-shaping our worldview. The various strands of phenomena converge to expand our view of what is possible in nature. It provides excellent raw material for the mytho-poetic imagination to work with. Psychical research is about experiences that transcend the constraints of material life. This opens the way of looking at the world and at key points in re-fashioning one's life story and identity.

Conclusion: in search of a new mythology of transcendence

So much for variations on the theme of how to integrate psychical research into the wider concerns of life. The challenge is to create stories that show how the research speaks to archetypal issues such as health, death, struggle against oppression, the nature of reality, what it is to be human, and so on. I have suggested a few story-lines for bringing psychical research into relief: the role it might play in forming a new healthcare paradigm; a broadened perspective on the meaning of death; a clue to our evolutionary future; resistance to the ideology of materialism; and finally, as a resource in the art of forging one's own story and identity.

These are suggestions. Others are possible. What is perhaps missing is the spirit of what Myers called mythopoeia, the active myth-making dimension of psychical research. A story to believe in that brings together all the elements and infuses them with the *energeia* of life itself.

Psychical research offers a rich palette of existential possibilities that would be dead in the water of reductive materialism. Adding psychical phenomena is like an artist adding colour to a black and white composition, or a traveler on a two-dimensional surface suddenly cutting loose into the depths and heights of space.

Psychical (soulful) research invites us to explore the hidden depths of ourselves, so easily occluded by an increasingly invasive techno-civilisation. If physical science has tended to invalidate the psychical, it falls upon psychical research to rectify that fundamental distortion. Science and human experience agree that we need to restore the psychical dimension of being to its rightful place.

Not just a matter of academic interest or intellectual correctness, we need to ask: What do ingrained assumptions of materialism imply for how we live? A materialist, like Thrasymachus in Plato's

Politeia, believes that might makes right. Militarism, it seems to me, follows from materialism. The same can be said for the economic system of capitalism, whose sole principle and *raison d'être* is profit, a strictly materialistic value. Consumerism would follow from the same matrix. The fact is that consequences follow from worldviews. If we are nothing but our physical brains, then all that is humanly interesting must be relegated to the realm of illusion.

Modern material science has unwittingly placed us on a collision course with global catastrophe, having created a nuclear Frankenstein monster and set into motion a race toward climate Armageddon. In face of this, I hold that the story of psychical research is the story of the soul of humanity in the battle for its survival on Earth.

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Endnotes

1. A short, valuable look at this period: *Joseph Glanvill and Psychical Research in the 17th Century* (1921) by H. Stanley Redgrove.
2. Arthur Conan Doyle's *The New Revelation* (1918) proclaimed that Spiritualism, which to him proved life after death, might become the basis of the unity of diverse religious faiths. J. B. Rhine thought of parapsychology as a weapon to wield against Godless Soviet communism.
3. Try the first dozen volumes of the English Proceedings of Psychical Research, which makes for much important reading and then for a recent, massive review of the data, *Irreducible Mind* (2007) Eds. Kelly&Kelly, Rowman & Littlefield.
4. *The Man Who Could Fly: St. Joseph of Copertino and the Mystery of Levitation*, 2016; and also Bernini's *Vita* of the flying mystic, *Wings of Ecstasy*, 2017. Bernini provides example after example of eyewitness testimony of the saint's wondrous performances. By showing him in his world, it's clear his phenomena are in tune with a ferociously intense Baroque sensibility.
5. The case is made by I.E. Kennedy, The Capricious, Actively Evasive, Unsustainable Nature of Psi: A Summary and Hypotheses. *Journal of Parapsychology*, Vol.67, Spring 2003, (pp. 53-74).
6. There are exceptions to this, as evident in the works of C. G. Jung
7. Peter Gotzsche's *Deadly Medicines and Organised Crime: How Big Pharma Has Corrupted Healthcare* (2013).
8. The evidence here is vast and varied. One might begin by scanning the Proceedings of the British Society for Psychical Research. Among some recent overviews, see Alan Gauld, *Mediumship and Survival*, 1982; Stephen Braude, *Immortal Remains*, 2003; Ed Kelly (ed.), *Irreducible Mind*, 2007; etc.
9. I attempt to do this, to some degree, in my commentary on Bernini's *Vita* of San Giuseppe, in my book, *Wings of Ecstasy*.





The Morphogenetic Field - New Perspectives

Paul Kieniewicz

*This essay is an expanded version of a presentation given at our Poland Continental Meeting in September 2017. It reviews the subject historically as well as providing an update of current research. **Blueprint for Immortality** by Harold Saxton Burr was an influential book on early Network Members.*

Morphogenesis - the origin of forms

One of the most intractable problems facing embryologists and developmental biologists is how living organisms acquire their geometrical shape. Why does an acorn grow into an oak tree while a tomato seed gives rise to a tomato plant? The specific function of a cell, whether it is a nerve cell, or part of the liver or kidney is presumed to be a result of DNA coding. But what process organises growing cells to form a 3-d organism? Where are the assembly instructions that direct cells to different positions to create the organism? This is a particularly vexing question in trying to understand regeneration in certain organisms. When a salamander loses a leg, it grows a replacement limb. Where are the instructions so that the new leg grows with the correct shape to exactly the correct size?

In the early twentieth century, biologists such as Hans Speeman, Alexander Gurvitsch and Paul Weiss hypothesized that there exists a pattern for every organism, one that organises cell growth and development. That pattern is encoded in a field of unknown nature, that surrounds the organism, one they called the morphogenetic field. Just as a magnetic field moves iron filings into an organised pattern, so the morphogenetic field provides a pattern for a growing organism. The topic has been studied and well publicised the past forty years by Rupert Sheldrake¹, who extended

the concept to explain how crystals form, how animals behave, and even to explain why nature “behaves” the way it does.

Mitogenetic radiation

Some of the earliest studies were by Alexander Gurvitsch (1874-1954), a Russian biologist working at Moscow University, and then at Leningrad University. In 1923 he observed that the growth of onion roots was influenced by the close proximity of other onion roots. He hypothesised that onion roots emitted weak electromagnetic photons that controlled cell growth. He suggested the photons were ultraviolet, and he called them Mitogenetic Radiation². He published over 50 papers on the subject. His experiments showed that emitters of Mitogenetic Radiation included active tumours, blood of healthy people and actively growing microbial cultures. Unfortunately, many other researchers were unable to repeat his results, resulting in some skepticism about the existence of the radiation. However, the invention of the photomultiplier tube in the 1950s allowed for the detection of weak photons emitted by living organisms³. The flux is typically 150 photons/sec, at wavelengths of 200-800 nanometers. Gurvitsch was convinced that biophotons (as Mitogenetic Radiation was later called) are a coherent form of radiation that formed a component of the morphogenetic field, however the mechanism of how those photons controlled growth was unclear.

First field measurements

The morphogenetic field theory was placed on firmer foundations with the work of Harold Saxton Burr and his associates at Yale Medical School. His group developed a sensitive voltmeter capable of measuring the field that surrounds living organisms, and observing how it works. His key paper, *The Electro-Dynamic Theory of Life*⁴ was published in 1935, in which he argues that electricity and electrical fields must play a primary role in the functioning of every living cell. This was hardly a controversial point. In the early 20th century, the Bengali biologist J. C. Bose in his work *Comparative Electrophysiology*, described the response of plants and animals to electrical stimulation. His experiments showed that the biochemical functions of every cell appear to be governed by electricity: the absorption of nutrients in plants, the movement of tree sap, sensory functions.

There is no doubt that electrical activity in living cells generates an electrical field that surrounds the organism, but is this field coherent? Does it contain information about the organism, that can be deciphered? Is it primarily generated by biological processes in the organism, or it is an organising field, in the sense that it regulates and controls those processes? H. S. Burr's experiments showed that the field is an organising field. Changes in the field were shown to precede developmental changes in the organism. He hypothesised that the field contains the pattern for the developing organism.

Burr's key experiment, recounted in his book, *Blueprint for Immortality*⁵, involved frog eggs. He measured the electrical potential between the points in the field surrounding the egg, and he found a region in all eggs where the potential difference was slightly higher. He writes,

Using micro-pipettes filled with salt solution and connected to the voltmeter we found different voltage gradients across different axes of the eggs. We marked the axis of the largest voltage gradients with spots of Nile blue sulphate and later found, as the eggs developed, that the frog's nervous system always grew along the axis with the highest voltage gradient. This was an indication that the

*field is primary --- the matrix that shapes the living form*⁵.

Curiously, the longitudinal axis, identified electrically, was present also in the unfertilised egg, indicating that it was not an artifact of the egg's development. In Burr's initial experiments the electrodes were in contact with the egg. However, he soon found that the electrodes could be removed a few millimeters, and that they recorded similar results, indicating that the electrical information was contained in the field surrounding the egg. He named it the Electro-dynamic Field, or the L-field.

Another experiment involved sweet corn⁶. Burr studied the voltage difference in the corn seed's longitudinal axis, and found consistent readings for each hybrid that distinguished it from others. Seeds of different hybrids can be segregated based on their electrical characteristics. He speculated that one of the ways that chromosomes impart design to protoplasm is through the medium of an electrodynamic field.

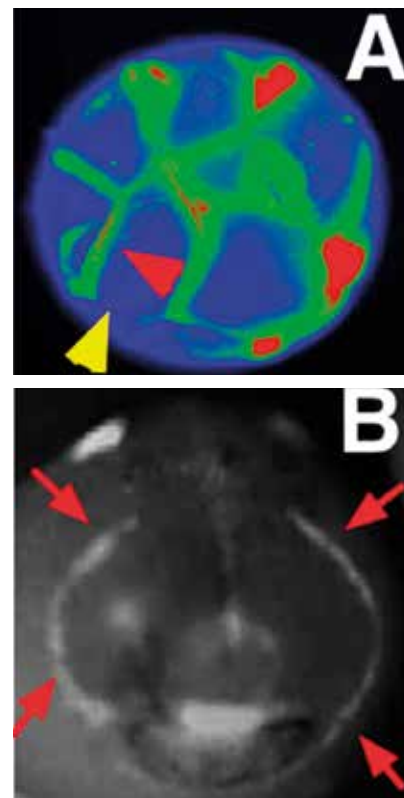
Burr also suggested that the root cause of cancer lay in a disorder of the morphogenetic field. He noticed that tumours in mice cause large scale disruptions in the electro-dynamic field⁷. Together with Dr. Louis Langman of NYU College of Medicine, he used field measurements to investigate whether one can diagnose uterine and ovarian cancer in women. One of his studies had over 1,000 patients⁸. One hundred and two of these patients showed voltage changes between the cervix and abdominal wall. Of those, ninety-five were subsequently found to have ovarian or cervical cancer.

The morphogenetic field theory remained popular during the first part of the twentieth century. However, with the discovery of DNA and the rise of molecular biology, the field theory fell out of favour. Biologists felt that all information about living organisms had to be contained in the genome, even though they could not tell where. An organising field, especially of unknown origin, seemed superfluous. However, recently the field theory is once again the subject of biological research, chiefly because molecular biology could not easily explain how forms originate, or whether the pattern was contained in a relatively simple genome.

New research in regeneration

Michael Levin, a biologist at Tufts University has recently continued the legacy of H. S. Burr and published new research on the morphogenetic field⁹. One of his most dramatic experiments involved manipulating the electrical pattern in a developing frog's egg. This manipulation resulted in an eye being formed in the gut of a growing tadpole.⁹ He was also able to grow two headed planarian worms, by applying an electrical field to a cut worm. All of which confirmed Burr's earlier hypothesis that the geometrical growth of organisms is controlled by an electro-dynamic field.

Another experiment conducted by Levin and his students involved observing the field of a developing tadpole, using an electric dye that revealed electrical potential differences in the egg¹⁰. The team made a video, that captures the changes in the electric field. The video shows the appearance of eyes and the mouth in the field, long before those changes are seen in the organism.



Fluorescent dyes show the electric voltage pattern of

A developing frog's egg, after Vandenberg, et al¹⁰.

Isopotential cell fields can also demarcate subtle pre-patterns existing in tissues, such as the

polarised domains (red arrowheads) that presage the expression of regulatory genes.

Readers can observe the Youtube Video, *The Face of a Frog*, narrated by Danny Adams, one of the researchers¹¹.

Like Burr, Levin also turned his attention to the cause of cancer. He suggested that a tumour arises when the instructions in the morphogenetic field are compromised, to where cells grow at random, rather than in assigned places with assigned functions. Most biologists today try to link cancer to a gene mutation, because the genome is known to be a carrier of information. However, biologists like S. Huang of the University of Calgary point out that the cell mutation hypothesis results in a paradox:

while many studies seek to “determine which gene is mutated to explain an incremental malignant trait, no one doubts that normal cells as distinct as a mature neuron

*vs. a blood or epithelial stem cell share the exactly same genome!*¹²

Smithers puts the problem in everyday language: *Cancer is no more a disease of cells than a traffic jam is a disease of cars. A lifetime study of the internal combustion engine would not help anyone to understand our traffic problems*¹³.

The morphogenetic field and healing

One of the most promising applications of the field theory is in healing. Can manipulating the morphogenetic field speed up the healing process? Min Zhao, a biologist at U.C. Davis recently discovered that an electric field at the site of a wound, such as a cornea tear, directs appropriate cells to initiate the healing.¹⁴ Cells actually move into place at the site of a wound, under the influence of an electric field. He was also able to show that human stem cells in the brain can be moved around by

an electric field, thus opening the potential for new forms of stem cell healing. Zhao's work also provides some support for many types of electro-therapy that are now becoming available.

What about the healing effect of human hands? For thousands of years some people have claimed to be able to detect pain, and other disorders by moving the hands close to the body. Sensations such as heat, cold and tingling are often reported. Healing techniques such as Therapeutic Touch, developed by Dolores Krieger R.N., rely on moving the hands close to the body, through the field. The morphogenetic field may explain how such a technique works. Hands certainly generate an electric field, which anyone who has played with a van de Graaf generator knows. Research by Min Zhao suggests that many animals are sensitive to electric fields, even weak fields. A recent paper outlines a biochemical mechanism¹⁵ that could explain how our hands are able to detect



weak fields. As discussed above, wounding creates a measurable electric field that directs cells to the healing site. This field may be what a healer detects with their hand. One can also speculate that the healer's hand may be able to enhance the field and speed up the healing process. If this mechanism is correct, then the ability to heal is a natural ability that most people can develop, and has very little to do with any belief system.

What is the morphogenetic field?

None of this explains the nature of the morphogenetic field. Is it purely electrodynamic, or does it have other components? What role if any do biophotons play? How is the information passed on down from generation to generation? Burr suggested that the field is caused by living cells and also organises their functions, an image suggesting the Ouroboros serpent that holds its tail in its mouth.

It's unlikely that the morphogenetic field is only electrical. Electrical fields are not known to contain dense amounts of information. The astronomer, Gustav Stromberg¹⁶, proposes that we are dealing with

an "autonomous field" that exists in its own right, and may not be reducible to biological or even atomic processes. He points out that biological forms have a long-term stability, despite the finite lifespan of individual cells. Organising fields must also have a similar stability, despite the existence of mutations and other modifications.

A most promising theory was proposed by Sheldrake¹, who suggested that the stability of the morphogenetic field is acquired by its history. A form, biological or crystalline, that is repeated many times creates an established field pattern that others can access. A seed grows into a tree because this has been done billions of times. Time and repetition are crucial to establishing the field. The developing seed has access to the pattern of a tree by a mechanism he calls Morphic Resonance. However, for Morphic Resonance to work, the field has to be accessible no matter the distance. The pattern for a tree is the same, no matter where the tree is located. We are dealing with information that lies beyond space and time. In that sense, the information in the morphogenetic

field must be non-local, even though its activity via Morphic Resonance is definitely electrical. But how is the information stored?

When Newton discovered universal gravitation, he was criticised by Boyle and Halley for not explaining what gravity was. How does action at a distance take place? Famously, Newton responded, "I do not make hypotheses." Not until Einstein published his General Relativity was there an answer. This may also prove to be the case with the morphogenetic field. We know that it is there, and that it controls morphogenesis. We can also measure it. But to understand how it arises or how its information is stored may require new physics.

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Bad Science, Lasting Legacy

Beata Bishop

“Science is made up of mistakes, but they are mistakes which it is useful to make, because they lead little by little to the truth,” wrote Jules Verne in the mid-19th century. Roughly at the same time two remarkable men, a German chemist and a French biologist, initiated new processes, both based on scientific mistakes whose harmful consequences took a long time to be recognised. It’s worth recalling their work here and now and sum up its impact which Verne’s “little by little” was unable to reveal at the time.

Justus von Liebig

The German chemist, Justus von Liebig (1802-1873), is known as “the father of the fertiliser industry”, and it was my interest in organic versus industrial agriculture that made me explore his life and meteoric career. He became a professor at a German university aged 21 and laid the foundations of practical chemistry and laboratory procedures. One of his bold projects was to revolutionise agricultural practice which he considered obsolete and messy: surely manure and compost were not the best way to promote fertility.

To prove his point, and without any knowledge of practical agriculture, he collected a bunch of basic food plants, burned them, analysed the ashes and found that they contained nitrogen, phosphorus and potassium. Eureka, these were then the minerals that plants needed to grow and thrive – and, with uninhibited zeal, Liebig went on to develop his nitrogen-based fertiliser which, he emphasised, was more hygienic and easier to use than dirty, smelly animal manure. Unfortunately, he didn’t consider the other, more subtle components that had gone up in smoke during his experiment but were just as important as the Big Three: varying proportions of calcium, magnesium, sulphur, carbon, iron, manganese, boron, zinc, copper, chlorine and cobalt. The less tangible but essential components of fertile soil – countless living organisms and complex organic matter – also remained unrecognised.

Thus began intensive chemical farming nearly 180 years ago, leading eventually to today’s catastrophic soil degradation all over the world:

according to the latest data, in the past 40 years the Earth lost one- third of its arable land due to erosion and pollution and to continual crop planting and harvesting which necessitates the heavy use of fertilisers; this eventually leads to the abandonment of the exhausted land and ultimately to desertification. Just as disastrously, the nutritional value of all industrially produced food plants has been steadily decreasing. The connection between that decrease and today’s worsening public health is only beginning to become clear – although, sadly, not within the medical Establishment. But at the time Liebig’s innovation was a huge success: nice clean stuff in nice clean bags was deemed superior to mucky manure. It also increased yields, as long as the soil contained enough of its original fertile humus. Once that had run out, more and more chemical fertiliser was needed to produce the same yield.

Liebig’s reputation grew fast. So did his range of interests. Next, he focussed on nutrition and declared animal protein to be the very stuff of life, much superior to plant foods, which promptly caused a big rise in meat consumption among the wealthy. For the less rich he invented an Instant Beef Tea. This turned into a huge commercial success, together with his meat extract, the ancestor of today’s Oxo, but even this didn’t stop the endlessly inventive Liebig from also

developing a meat-free, yeast-based spread, known today as Marmite. If anybody knew how to have it both ways, it was Liebig. He must have possessed prodigious energy and inventiveness, combining his commercial interests with a dazzling university career and incidentally enjoying the support of King Ludwig II of Bavaria.

All this may sound like ancient history, but the consequences are still with us. It's only recently that the huge environmental cost of breeding livestock for the meat market has become obvious. What Liebig started in Germany around 1865 quickly became fashionable in the rest of Europe where previously much less meat was eaten; today, spreading from Europe, the appetite for meat is growing in developing countries, at the expense of traditional healthy plant-based diets. A spontaneous counter-movement has started very recently in this country, popularising vegetarian and vegan food. As it is backed by the print media and several celebrity chefs on TV, it may help to counteract Liebig's doctrine.

All in all, Liebig was something of a trickster. As a boy he left grammar school without a certificate of completion, and after a spell in Paris he obtained a degree from the University of Erlangen – in his absence and without producing a dissertation – thanks to the help of a family friend. In his first University job he charmed students (and their fees) away from a senior professor who, as a result, committed suicide. Aged only 23, Liebig opened his own institute and pioneered the teaching of practical chemistry and laboratory procedures, besides producing new inventions; a dazzling performance indeed, lasting forty years.

However, he also had many critics who objected to his exclusively theoretical approach which allowed him to set up a hypothesis and then try to apply it to subjects such as soil science and nutrition (a classic example of bad science). He was accused of ignoring the known realities of diet and health, yet defending his poorly formulated ideas in an imperious manner. Controversies broke out around his work. Towards the end of his life he opposed one of Pasteur's theories and was proved wrong. Liebig's luck eventually ran out, and he knew it. "May God forgive me for what I've done," were his last reported words from his deathbed. It's not clear whether he meant his scientific

work or his religious lapses.

Since his day artificial fertilisers have been greatly developed. While the Big Three – nitrogen, phosphorus and potassium – remain basic, other elements are added to them depending on the nature of the crop, such as molybdenum, zinc, copper, boron, cobalt, calcium and magnesium. But the fact remains that soil erosion can occur up to 100 times faster than soil formation, and a recent study, backed by the UN, urged a shift away from destructively intensive agriculture. Yes, the so-called green revolution has produced increased yields, but at the expense of sustainability, and that, in the light of population growth and the loss of fertile land, is an alarming development.

Louis Pasteur

Moving on, it was Louis Pasteur (1822-1895), the famous French biologist and chemist, who proved Liebig's stance on fermentation wrong. What else do we find in his legacy? Having explored Liebig's work, I decided to do the same with Pasteur's. Some of it is common knowledge: it's thanks to him that we can safely drink pasteurised milk or wine with no risk of contamination. We also know Pasteur's germ theory which claims that fixed species of microbes invade the body and are the first cause of infectious disease. This theory has been the foundation of allopathic Western medicine to this day.

Less well known is Pasteur's work in discovering the principles of vaccination and much else that is of no interest in this context. What grabbed my attention was the number of controversies raging around him in mid-career. Two eminent contemporaries of Pasteur contradicted his celebrated germ theory. Professor Antoine Béchamp declared that it is not the germs but our inner terrain that we need to worry about: "Germs are not the cause of the disease, any more than flies and maggots cause garbage", he wrote. Concurrently medical scientist Claude Bernard, the founder of experimental medicine, coined the term "*milieu intérieur*", i.e. inner terrain, whose stability, he claimed, could protect us from germs and let us live a healthy life. Today the "*milieu intérieur*" is called the immune system.

The bitter dispute between these three men went on for years. Béchamp and Bernard were scientists, Pasteur was a chemist with no training in life sciences who nevertheless ran clinical trials disregarding all known medical ethics. He also managed to secure public support for his own work, and official disapproval of his critics. (Subsequent historical reassessment of his notebooks revealed that he had regularly practised deception to overcome his rivals.) I find the relentless feuding of 19th century scientists depressing, particularly Pasteur's methods of undermining his opponents, above all Béchamp, who retired amid hostile efforts to have his work placed on the list of books prohibited by the Catholic Church, because of his dispute with Pasteur. This single fact deprives the whole sorry saga from any connection with science.

A singularly concise rejection of Pasteur's germ theory came from Dr Rudolph Virchow (1821-1902), the brilliant German scientist known as "the father of modern pathology": "If I could live my life over again, I would devote it to proving that germs seek their natural habitat – diseased tissue – rather than being the cause of the diseased tissue; e.g. mosquitoes seek the stagnant water, but do not cause the pool to become stagnant."

Eventually the time came when even Pasteur had to confront the possibility of being wrong, and he did it at the last possible moment, namely on his deathbed when he spoke his last words: "Claude Bernard was right, the microbe is nothing, the terrain is everything." A shattering admission, cancelling the validity of his germ theory and confirming its very opposite, yet it has never been followed up and taken to a logical conclusion. Also, it is worth noting that even at death's door Pasteur chose to validate Bernard's claim, rather than that of the hated Béchamp.

The consequences today

What concerns us here and now is that while Pasteur certainly, and Liebig probably, retracted his main teaching at death's door, those last words were as good as lost, leaving us stuck with the consequences. In Liebig's case the use of artificial fertilisers quickly wiped out traditional organic methods in the developed world, impoverishing the soil and the food plants grown in it. Yet as Lady Eve Balfour, foun-

der of the Soil Association put it in 1946, „The health of the soil, plant, animal and man is one and indivisible.” A glance at public health today quickly demonstrates the link between sick soil and an overfed but undernourished sick population. Recall the fact that worldwide 10 million hectares of no longer viable cropland are abandoned every year while populations grow by leaps and bounds, and you begin to despair of the future.

Liebig's promotion of a meat-rich diet has also brought dire consequences for the environment, for the hugely increased breeding of farm animals is the least economical way of food production. It is only now, nearly 200 years after Liebig's disastrous innovations, that organic agriculture is struggling to return against heavy odds, while a more plant-based, less meat-rich diet is being officially promoted.

Moving on to Pasteur, the unpublished retraction of his germ theory means that to this day allopathic medicine largely ignores the importance of the inner terrain, the totality of the organism within which ill health develops. Yet without

attention to the *milieu intérieur*, where everything is connected to everything else, the risk of symptomatic treatment – mainly by drugs – looms large, leaving the root cause untouched; hence the depressing use of endless repeat prescriptions. Of course if I fall ill with a bacterial infection I expect to be treated with antibiotics instead of waiting for the *milieu intérieur* to do the job on its own (it could be a very long wait indeed); at the same time the condition of my immune system will play a vital role in maintaining my wellbeing (or its opposite).

I see a process resembling Pasteur's germ theory at work in oncology, where every kind of treatment and all attention is concentrated on the tumour, mirroring the focussing on the germ in Pasteur's retracted theory. The inner terrain, the organism that had produced the tumour is ignored. Only very recently has the idea been mooted that perhaps, instead of using toxic chemicals or dangerous radiation to kill the tumour, clinicians should consider strengthening the patient's immune system, i.e., the inner terrain, which then might overcome the

malignancy. Well yes, that sounds reasonable. After all, 121 years ago Pasteur declared with his last breath that the terrain is everything. We may assume that by then he knew what he was talking about. (Having myself recovered from Stage IV, metastasised malignant melanoma 34 years ago on an immune-system-strengthening alternative therapy, I am in a good position to agree with Pasteur's last words.)

This double story of bad science and its consequences ends here. Unfortunately its effects in agriculture and health, two vital areas of everyday life, are still affecting us all. It will be a gigantic task to make this widely known, so that we can update our views and ways accordingly. But even the longest journey begins with a single step; this article is my attempted first step in that direction.

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Music and Clay, Notes and Forms

Catherine Thom

When I was a child, I discovered classical guitar, and have been playing ever since. Living in Northern Ireland then, there were few teachers of the instrument, so I was largely self-taught. This fostered a freedom of approach and thinking which I have appreciated all my life, and which has led me now from music into clay, transferring skills and philosophies from one medium to the other, benefiting from both disciplines. David Lorimer (Programme Director of the Scientific & Medical Network) visited my home and studio recently, and finding my life apparently transformed from one shape to another, suggested I write an article for Paradigm Explorer on the transition between mediums, and the meaning this enfolds. Although it is a personal account, I hope this may be of interest within the SMN.

My performing life as a classical guitarist started at 11, and the rest of childhood included solo recitals, television and radio broadcasts, and teaching (which began at age 12) in workshops, masterclasses, and University, Teacher Training College and School of Music settings. This meant that, along with the usual teenage questions of life, I had in the mix many meaningful experiences from concerts and the guitar, which shaped my life and philosophy. When, much later, I laid hands on clay on the potter's wheel, I was fascinated by how many similarities I perceived in the two disciplines, and I have been using a Master's Degree in Ceramics to, in part, explore this area further.

I am particularly interested in both forms as ways of creating a space for deep listening, experience, or even a 'mindfulness' moment.

It was obvious to me as a child how the concert situation created a space of potential for listening (perhaps you may feel I am stating the obvious here), but this, I feel, may also be the case in the use of a domestic ceramic object – even, and perhaps especially in our culture, the simple mug.

In my travelling around the country and abroad, as a guitarist, I was given hospitality by so many kind folk. So often this expression of sharing would be based around 'a cup of tea'. These were times out of the run of normal life, windows with their own opportunities, times of openness, dialogue, listening, sharing, communion, even with strangers, all centred around the ceremony of 'a cup of tea', as the moments in a concert are centred around the presence of the music.

Of course, the formal tea ceremony (Okakura, 2016), brought to Japan from China by Buddhist monks, which gradually became a part of secular life and self-discipline within

the Japanese culture (Kemske, 2017), cannot but be in one's mind in this context. When I have visited institutions to give workshops or concerts, I have often been made most welcome by the support staff, again with a cup of tea (or coffee), and I have frequently reflected on the tie-in with the tea ceremony – a very distant cousin, perhaps, stripped of all formality, but maintaining hospitality, placing the guest before oneself, welcome, courtesy and so forth, and, most importantly, that 'moment out of the stream of life', which has its own rules and possibilities. From the support staff to all of us, in the stream of our busy and often over-pressured lives, this 'mindfulness moment', this opening of possibilities, with reawakened, rested senses and mind, seems to me to be a crucial link with times of inner refreshment, which may do more than most of us realise to keep our lives, amidst the hubbub of challenges, on track and stable. I think this may be a secular and hidden, but natural version of the monastic liturgy of the hours, where regular returning to the inner self reminds the monk or nun of an inner direction, an inner voice, and meaning in life.

I have been speaking of the shared moment in tea imbibing, but even more important are, to my mind, those moments of solitude, alone, and revisiting of that state of quietness. It is then, in particular, that the companion-in-solitude, the humble drinking vessel, can come into its own.

Meditation manuals and mindfulness instructions often suggest choosing a particular place, or chair, to which one returns in moments of quiet. I think this



Figure 1: Porcelain beakers, Catherine Thom

also applies to the drinking vessel. Many of us have a favourite mug to which we return with the sense of greeting an old companion and friend. Yesterday alone I spoke to three different people who spoke to me of the individual handmade mug or mugs they use daily, with almost the fondness, even love, a child may have for a favourite teddy bear, or companion-in-play.

One spoke of the hand-crafted porcelain mug with which she starts every morning, drinking a diluted cider vinegar mix. One day she dropped it whilst having a cup of coffee. Bedside table, books, bed and carpet were tainted with coffee, but the precious mug SURVIVED. "What would I do if I ever broke it?" she cried, knowing she was speaking to a fellow sympathizer. "I would have to ..." and she paused, struggling for the concept, "... build up all over again." She knew almost a fear of bereavement, anticipated, where the icon of the mug could not immediately be replaced in her life. Interestingly, she could only just, and then when prompted by myself, remember the name of the potter.

The second person had recently discovered handmade ceramics, and had that morning (said with triumph) taken all her 'ordinary mugs' to the charity shop. "I don't want those any more," she said, and described the 'ceremony' (her word, with no knowledge of tea history) she now loves in making her tea. She bought a teapot hand-thrown by a ceramicist friend of mine, "and now I'm into loose tea! I used to buy any old tea bag..."

The third was the buyer in a Craft Shop which may wish to stock my work, and we were discussing the format this might take. A chance phrase led her to talk of the mugs she treasures, and uses daily.

As with the others, her face became transfixed, the business matters vanished, and she shared stories of much-loved mugs, including one by Simon Leach (grandson of Bernard Leach), "which I always use every evening".

In all three cases, we had entered a privileged space, which it was a great honour to be allowed to share, and which shone with the quality involved in their daily moments of 'a cup of tea' (or coffee, or cider vinegar), a re-visited solitary ritual, in which the vessel, the mug, the teapot, played an important, a vital part.

This very much reminds me of a part in the structure of a solo classical guitar recital which has always meant a great deal to me. After the audience and performer have come to know one another through the first part of the programme, and more usually after there has been a deepening of that companionship through further shared musical listening, there generally comes a time in the programme when the companionship between audience and performer has settled into what I can only call a space enhanced by trust, where we can be quiet. I have loved the experience of playing, at those times, a reflective piece, often slow-moving, and with simplicity, and I have found that the previous audience-performer journey can allow such, often short, pieces to transfigure into profundity: in short, there is a quiet space where the deeper listening enabled by audience-performer trust, sympathy and common journey in the music brings about the potential for a deeper listening experience. The comparison with the quiet 'cup of tea' moments is obvious here.

This takes a great deal to bring about, usually, in the concert

experience. The audience, and the performer, come from daily life, and return to it afterwards, and there is an element of transition inevitable, and often tangible at the beginning, and after the end of the evening's music. But, once settled in, the 'musical space' has, or can have, the potential of sacredness, whether in a secular or religious framework. This can be a special time, all the more so because, whilst first and foremost individual, there is also an element of community, shared space, engendered by the trust and respect brought about by the development of the evening to that point, and the intentions, perhaps, of the artist. To my mind, this is so similar to the courtesy and interpersonal dialogue, the sharing, of the 'cup of tea'. In my experience as a performer, profound shifts of meaning can occur in an individual listener (in which I include myself as performer) during this space, and it is indeed a privilege to have a part to play (no pun intended!) in those times.

I remember one occasion, many years ago, when I was engaged to play to very elderly people in a residential home. This was part of a series of concerts I gave under the 'Live Music Now' banner, an organisation set up by Yehudi Menuhin which brought performed music to situations where it might not normally occur, such as prisons, centres for the homeless, and so forth. I always enjoyed these concerts as a balance to the usual concert hall format. On this occasion, no-one had informed the residents (or the staff) that I was coming, and an embarrassed staff member hustled me without ceremony into a long room, with walls lined by silent residents in armchairs, all focused on the blasting TV set at one end of the room. She whisked a chair in front of the TV, turned it off abruptly, muttered my name, and fled.

No-one moved or spoke, and all continued to stare at the blank TV space, which was now blocked by my seated form. I thought I'd better keep the concert brief, since I was basically an intruder, so I played for about 20 minutes, introducing each piece before playing it. At the end, on an impulse, I went around the room, initially with no fixed intention, but I ending up by moving from chair to chair (in the still silent space) and at each chair, I bent over and shook hands with each person.



Figure 2: Porcelain teabowls, Catherine Thom

I have rarely had a more moving silent experience. Every one of those wonderful people engaged my eyes with theirs, and the communion, indeed, love, that flowed from each person to me was almost overwhelming. This roomful of passive people, who seemed, when I arrived, almost in a silent waiting-room for death, were vitally alive. Each person, individually, communicated so powerfully to me through touch, but in particular through their gaze, with full and awake depth of humanity. I am still moved, when I reflect on the experience, and I am not sure that I understand, even now, what happened during that short period of music.

I suppose what I am trying to say is this: that the potential of the quiet moment, in music or in ordinary life, holding a mug of tea, is full of possibility, rest, renewal, and when I make pots, it is with the motivation to form vessels in the hope of supporting, if possible enhancing, or at the very least, respecting, this rich part of our humanity.

As a new student at University, away from home, like most freshers, for the first time to such an extent, I fell ill with influenza. I still remember lying in bed, my gaze on the mug on the table beside the bedhead, comforted somewhere within me, in my need. The mug, simple and rough, was made by my ceramicist mother, who specialized more in hand-built forms, but had thrown mugs for me, at my request, to take to University. The mug did not just speak to me of my mother, but of her humanity, creativity, inspiration, even aspiring imperfection. It comforted me in its presence, as an object in its own right, independent of its maker. It was my mug, and it kept me company and spoke companionably into my solitary need.

Kanghyo Lee, a world-renowned Korean potter, speaks of the journey of the pot when it leaves him, to start a new life, the life it shares with the person who uses it (Cho, 2015).



Figure 3: Kanghyo Lee and Catherine Thom

He has a profound appreciation of the simple, knowing that it brings him closer to profundity than, as a younger man, he had understood. The film 'A Beautiful Life' depicts something of his philosophy and way of life (Goldmark, 2014).

Recently, Kanghyo Lee spent some time near Plymouth, constructing a massive pot, and decorating it as part of 'Making Futures 2017', an artists' conference based at Mount Edgcumbe, Cornwall, not far from my home. I enjoyed enormously watching his building, over five days, and occasionally helping with clay preparation. It was good to meet a man whose outlook I knew to be in tandem with my own, and to see his way of life expressed in his quiet, rhythmical, and simple way of working. Above all, this idea of the journey of the pot enthralls me, and he expresses something which I have always felt, in my lifelong exploration as a user of ceramics.

To my musician's mind, this is a cheating of time. I have been used, as a guitarist, to hearing the music end when the concert is over. The memory remains, the experience has been lived, but the notes have vanished with time into the ether, and must be recreated anew, another time, which is always a new time.

I do not consider recorded music here as a way to outwit time. Much as I have respect for the recorded medium, there are elements to exact repetition which concern me. We never say the same thing repeatedly the same way, or even move in exactly the same way. Each moment is created anew.

However, it is in the nature of clay to be a remaining object, lasting naturally through time, and it is natural to build up a closeness with the object through repeated meetings over time. These can bring increased closeness with the object, more intimate relationship with it, just as one builds friendship in renewed acquaintance with people over time. And so, I playfully say, that to me as a musician, clay holds the frozen music, but lives it on and shares it still, in a continuing performance, bridging clay, the stuff of our earth, rocks in powdered glazes, the humanity and inspiration of the craftsperson, and the listening and opening of the 'audience', the most important role of all, without whom the dance, the song in clay, would have no voice, and find no resonant chord.

This is the life of the pot, the music of clay.

Catherine Thom is a solo classical guitarist, performing nationally and internationally since the age of twelve. Her numerous television and radio broadcasts, workshops and masterclasses, complement her extensive career as a recitalist, including acclaimed performances at London's Wigmore Hall. At sixteen she taught at the University of Ulster, Stranmillis University College, and the City of Belfast School of Music, and she later lectured in Music at Plymouth University. Due to a recent family illness, concert touring has been on hold, and Catherine has become a ceramicist, working for 18 months with Jeremy Leach (grandson of Bernard Leach) at Lowerdown Pottery, Devon, then exploring ideas of Music & Clay within an MA in Ceramics at Plymouth College of Art. Catherine works from her studio in Cornwall.

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Waiting to Die

Kenneth Ring

*The bright realisation that
must come before death
will be worth all the
boredom of living.*
-- Ned Rorem

What's it like, waiting to die? Of course, it's different for everyone. I can only say what it's like for me. On the whole, it's rather boring. Don't get me wrong. I still have many pleasures in life and – knock on silicon – I'm lucky not to be suffering from any fatal illness, though if I were, that would certainly add some drama in my life. I could then follow the example of the poet Ted Rosenthal, who after contracting leukemia, joyfully called his friends and said, "Guess what's happened to *me!*" Well, no thanks. I'll take my boring life any day and intone a hymn of gratitude every morning I wake up with only the ordinary indignities of an old man – coughing, wheezing and sneezing, and, oh, my aching back!

But still....I'm used to having productive work -- writing books, helping other authors with their books, being involved in various professional pursuits, and so forth. But recently I published my last book, which I puckishly entitled, *Pieces of My Mind Before I Fall to Pieces*, which was a kind of potpourri of stories and interests from my later years, and just after that I wrote what I expect to be my last professional article, the foreword to a colleague's memoir. Now what? More precisely, what do I do with my time now that I have clearly entered the epilogue to my life? Honestly, I feel as if I have stepped over the threshold into my afterlife before dying.

Of course, I can watch films – I've become quite a "film buff" in my later years; I still have interesting books to read. I am blessed with a wonderful girlfriend. Still, since life has become a spectator sport for me, and I can no longer travel, except locally, I find that I am

spending more time on my sofa, honing my couch potato skills, watching sports. Yet I must confess that even they have lost a good deal of their zest for me. My home town baseball team, The San Francisco Giants, finished in the cellar last year; in golf, Tiger has gone away; in basketball, Michael Jordan is long gone; and in tennis, which is now the only sport I follow with some avidity, it is chiefly because of the great Roger Federer. Nevertheless, I can only wonder how long he can at 36 continue to produce one miracle after another? Surely, he, too, will begin his inevitable decline soon, and with his descent from the heights of glory, my interest in tennis will also flag. So what will be left then? I will tell you.

The body. Mine. It has already become my principal preoccupation and *bête-noire*. These days, I can't help recalling that St. Francis referred to the body as "brother ass." It seems I now spend most of my time in doctors', chiropractors' or dentists' clinics, as they strive to preserve my decaying body parts by inflicting various forms of torture on me that would even impress Torquemada, or doing physical therapy in what is most likely a vain attempt to delay the encroaching onset of wholesale physical deterioration. Really, is this any way to run a navy? There are many days when I think the only surgery that will preserve me would be a complete bodyectomy.

Well, okay, I realise this is only par for the course of the everyday life of an octogenarian. Wasn't it Bette Davis who famously said "old age is no place for sissies?" It isn't for wimps like me either, it seems. (I can often be heard crooning,

“turn back the hands of time....”) Still, I wouldn’t go so far as the saturnine Philip Roth who said that old age is “a massacre.” I guess at his point I find myself somewhere between Davis and Roth, but the waiting game still seems to be a losing proposition and I might very well come to think of my current boredom as the halcyon days of my decline.

Nevertheless, consider a typical day in the life of this old wheezing geezer.

It begins with the back. Every day does. In the morning, you get up, but your back doesn’t. It hurts. Even though you take a hot shower before bed, by the time you wake up your back has decided to take the day off. When you try to use it, as for example, when you bend over to pick up the comb you’ve dropped into the toilet, it begins to complain.

And finally, it gets so bad, you have to lie down on your once neatly made bed, remove half your clothing, and apply some ice to it while listening to mindless music and cursing the day when some enterprising hominid decided it would be a good idea to change from the arboreal life to a bipedal one. Big mistake. The next one was the invention of agriculture, but never mind. We were talking about the back and its vicissitudes.

Nevertheless, a little later, you decide to take your body out for a spin. “Don’t look back,” the great Satchel Paige advised, “something might be gaining on you.” In my case, it’s the man with the scythe whom I hope to outstrip for a few more years.

Of course, the back, which had only been moaning quietly before now begins to object vociferously, asking sourly, “what the hell are you thinking?”

Nevertheless, you press on, thinking your will will prevail, and your back can go to hell.

But the next dispiriting thing you notice are all these chubby old ladies whizzing by you as if they are already late for their hair appointments. How humiliating – to be passed by these old biddies! You think about the days in junior high when you were a track star, setting school records in the dashes and anchoring the relay races, which you used to run in your bare feet. Then you ran like the wind. These days, you are merely winded after trudging a hundred yards.

When you can go no further, you turn around only to become aware of still another distressing sight. Actually, it is your sight – or lack of it. It ain’t working. You could see pretty well after your corneal surgery last year, but now you can’t see worth shit. What is that ahead of you? Is it a woolly mammoth, a Saint Bernard or merely a burly ex-football player? Where are the eyes of yesteryear? Gone missing. Well, they didn’t give me any guarantees as to how long my vision would last before it decided, like my back, to begin to object to its continued use outdoors. The way of all flesh doesn’t stop with the flesh; it continues with the cornea, so now I am cursing the darkness in the middle of a miasmal morning.

I finally arrive home in a disconsolate mood, but now it is time to hop onto my stationary bike, which is the only kind I have ever been able to ride since my balance is worse than that of an elderly inebriate on New Year’s Eve. I used to be able to pedal reasonably fast and for a long time. But lately someone must have snuck in to affix some kind of a brake to the bike since suddenly it seems that I am pumping uphill at an acute angle. Heart rate is up, speed is down, my old distance marks are a treasured memory, which I can only mourn. All I am aware of now is the sound of someone huffing and puffing.

At last the torture is over, but now I really have to piss. That damn enlarged prostate of mine has no patience – it must be satisfied *now*! I race into the bathroom, unzip my fly before it is too late, and make sure, because I have my girlfriend’s admonitions in my ears as I piss that she will behead me if I continue to treat the floor as an auxiliary pissoir, I am pissing very carefully into the toilet bowl. Of course, these days, my urinary stream is a sometimes thing. It starts, it stops, it pauses to refresh itself, it pulses, stops, dribbles, starts up again with what seems to be its last mighty effort to produce something worthwhile and finally drips itself into extinction.

I’m relieved, however, because at least I haven’t soiled my pants this time. But wait. What is that? Pulling up my pants, I can feel some urine on my left thigh. How the hell did it get in there? Is there some kind of silent secondary stream that runs down the side of my leg when I am otherwise preoccupied with trying to keep my penile aim from going astray?

Now I have to find a towel to wipe off the offending liquid and just hope my girlfriend won’t say, when I return to the kitchen, “what is that funny smell, darling?”

Well, you get the idea. Life is no longer a bowl of cherries, or if it is, some of them are turning rotten. And naturally I can’t help wondering how long I have to go before I *really* cross that final threshold over the unknown. For years, I’ve joked that I’ve wanted to live to be 1000 – months – old. Now I’m at 984 and counting. I’m getting close, and it’s no longer just a joke.

And of course I now also have to wonder what will be next? I mean, after I die, assuming I will ever get around to it.

Well, in my case, I have some inklings because I’ve spent half my life researching and writing about near-death experiences and in the course of my work I’ve interviewed hundreds of people who have told me what it was like for them to die – at least for a few moments – before returning to life. And what they have told me has been, I am frank to admit, profoundly reassuring.

I remember one woman who said that in order to grasp the feeling of peace that comes with death you would have to take the thousand best things that ever happened to you, multiply them by a million and *maybe*, she said (I remember her emphasis on the word, “maybe”), you could come close to that feeling. Another man said that if you were to describe the feelings of peace that accompanied death, you would have to write it in letters a mile high. All this might sound hyperbolic, but I have heard such sentiments from many near-death experiencers. Here’s just one more specific quote from a man I knew very well for many years, telling me what it was like for him to die:

It was a total immersion in light, brightness, warmth, peace, security....I just immediately went into this beautiful bright light. It’s difficult to describe.... Verbally, it cannot be expressed. It’s something which becomes you and you become it. I could say “I was peace, I was love.” I was the brightness. It was part of me....You just know. You’re all-knowing – and everything is a part of you. It’s just so beautiful. It was eternity. It’s like I was always there and I will always be there, and my existence on earth was just a brief instant.

After listening to so many people describe what it was like for them to die, it is easy for me to imagine what it might be like for me – for anyone – to take that final journey. And many great writers have said much the same thing as those I have interviewed have told me about what is in store when we die. Walt Whitman, for example, who wrote “And I will show that nothing can happen more beautiful than death.” And Herman Melville, with even more eloquence, said, “And death, which alike levels all, alike impresses all with a last revelation, which only an author from the death could adequately tell.” It seems that in our own time, these authors from the death are today’s near-death experiencers, and the revelations they have shared with us appear fully to support the claims of these famous 19th century American authors.

So having immersed myself in the study of near-death experiences for so many years, I’m actually looking forward to my passage when my time comes. Still, I’m not looking forward to the dying part. In that regard, I’m with Woody Allen who quipped, “I’m not afraid of death; I just don’t want to be there when it happens.” I just hope that all those stories I’ve heard about how wonderful death itself is aren’t some kind of a spiritual *trompe l’oeil*, a cosmic joke played by a malevolent god. Or as that marvelously antic diarist and composer, Ned Rorem, whimsically jested, “If, after dying, I discover there is no Life After Death, will I be furious?”

Of course, when I am faced with the imminence of death, I hope I’ll be able to comport myself with some equanimity, but who knows?

Think of Seneca who wrote so eloquently about suicide, and then horribly botched his own. Well, naturally, I’m not planning to hasten my death by such extravagant means, though I wouldn’t refuse a kind offer of a little help from my doctor friends to ease me on my way if I’m having trouble giving birth to my death. It can, after all, be a labor-intensive enterprise. I just hope I can find myself on that stairway to heaven I’ve heard so much about and can manage to avoid a trip in the opposite direction.

Meanwhile, when did you say Federer will be playing his next match?

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*Kenneth Ring, PhD, is Professor Emeritus of Psychology at the University of Connecticut (though he currently resides in northern California). He is the co-founder and past President of the International Association of Near-Death Studies (IANDS), founder and original editor of the Journal of Near-Death Studies, and the author of five books on the subject of near-death experiences, including *Heading Toward Omega*, *Mindsight: Near-Death and Out-of-Body Experiences in the Blind* and *Lessons from the Light*. For many years, he has lectured internationally on his NDE research and related topics and has appeared on many radio and television programmes in connection with his work.*

I just hope I can find myself on that stairway to heaven I’ve heard so much about and can manage to avoid a trip in the opposite direction.





Beyond the Brain XII: Further Reaches of Consciousness Research

John Clarke

*“I regard consciousness
as fundamental”
(Max Planck)*

The subtitle of this conference begs the question: how far can this research reach? Some argue that consciousness and the research that goes with it is confined to the brain, or at most to overt behaviour. Others hold that mind reaches beyond the brain and can communicate with other minds across space and time, and perhaps break through the frontier of death, while others even ascribe to the mind a fundamental role in the cosmos at large.

Max Planck’s words above remind us that in recent times scientists of distinction have not feared to reach out beyond the brain. But more typically science has kept its collective head down and concentrated research on the observable world of matter and brain, the general tenor being materialist and reductionist. Philosophers in the Anglo-American world have pursued a similar trajectory and have typically been happy to limit consciousness to a role described by one of our presenters as “epiphenomenal, computational, a-causal, and illusory”.

The times are changing however, and a transformation appears to be taking place, amounting, some argue, to a potential paradigm shift. Philosophers have begun to question the earlier passion for reductionism, and have even been heard to describe consciousness as an ultimate mystery; some even flirt with panpsychism. Science too has dared to collaborate in this cultural break-out, and earlier inhibitions about entering the world of subjective experience have been

relaxed. It is towards this kind of emancipation, and some of its practical therapeutic consequences, that the conference extended its collective mind.

In his introduction **David Lorimer** emphasised the long commitment of the Network to this kind of paradigm-interrogation, especially in the *Beyond the Brain* conferences. He pointed out that questions about the relationship between mind and body had frequently been discussed at these events, not just as philosophical speculations but as challenging prevailing methodologies in the spirit of the ‘radical empiricism’ of William James and the evidence-based spirituality of Sir Alister Hardy, making use of modern investigative methods to investigate unusual or transcendent experiences.

Dr Rupert Sheldrake has been an important contributor to these discussions. Noteworthy is his insistence on following the standard methodologies of scientific research, even though his work has led him to unorthodox conclusions. The fact that scientists are beginning to experiment with a more ‘radical empiricist’ methodology may indeed be a harbinger of paradigm change, though as Rupert has discovered to his cost this shift can be painful. The deployment of well-established field theory (gravitation, electro-magnetic, quantum) is a key to Rupert’s approach, and in his talk he described how he came to explore the possibility of treating the conscious mind as a type of field. He pointed out that we tend nowadays to think

of mind as located in the head, yet in our ordinary experience we intuitively feel that our conscious minds extend beyond the brain out into the world, and reach out field-like into the space beyond our bodies. He went on to describe how in various contexts the concept of mind as a field looks like a promising theory, and gave a summary of the application of this theoretical framework to specific cases. These involve various examples of the apparent non-local action of mind - what Einstein called 'spooky action at a distance' - including aspects of social bonding, telepathy, psychokinesis, and the claimed healing powers of prayer and meditation, as well as non-local communication with domestic pets.

The methodological issues were important also in the presentation of **Prof Chris Roe**. Coming from a background with a long involvement with parapsychology and the paranormal, including clairvoyance, telepathy and precognition, he located his own work at Northampton University within the history of his discipline, beginning with the work of J.B. Rhine and setting this in the context of the prevailing research paradigm. His leading conjecture was that psychic phenomena (psi) may be detected at an unconscious level by use of techniques of skin surface electric potential in a way that affects mental and behavioural activity without conscious awareness. This involved a series of experiments in which he attempted to get beyond the laboratory ethos into that of common everyday experience. He went on to describe the link between his work and that of Daryl Bem who devised research programme protocols which were carefully immunised against the skeptical gaze of the prevailing paradigm-holders, but which in spite of methodologically robust outcomes produced reactions which Chris believed were patently prejudiced in favour of the prevailing paradigm. The subsequent discussion raised questions about the applicability of a strictly data-led averaging-out method to the complexity of the individual human subject.

The work of **Dr Cassandra Vieten** as President of the Institute of Noetic Sciences has for some time been focused on developing the range and methods of research on the mind-brain interconnection, and with our capacity to reach

out beyond the brain, with particular reference to the realms of spirituality and mental health. She pointed towards signs of a paradigm shift in the sciences of consciousness as evidenced, for example, in the increasing normalisation of consciousness studies and research. IONS she noted was specifically engaged in a research project concerning the powers of meditation practice, and alongside that in technologies relating to consciousness transformation including the use of robotics and virtual reality.

The next topic was magic. The speaker **Prof Dean Radin** (communicating by Skype), Chief Scientist at the Institute of Noetic Sciences, asked us to accompany him on a rediscovery of what he called the 'Esoteric Legend' of magic, a modern variant of ancient spells, evidence for which is completely ignored by the scientific mainstream; even the field of parapsychology adopts this taboo. By another name, though, we often break this taboo, for example in the religious commitment to the power of prayer, to sacraments and the mass, to rituals of all kinds. If we take magic seriously, then, how does it work? To find an answer to this, Dean argued, we do not need to deny the validity of physics, but to look beneath it to more fundamental principles of the kind which have been enunciated by Plato, inter alia, principles which imply that our understanding of the material, sensory world needs to take account of the pervasive power of mind. To discern this, we need to look no further than our everyday experiences such as will-power and conscious intentions. Indeed, in the discussion which followed Dean argued that all of our conscious experiences have a *prima facie* magical element, as do our digital technologies.

Prof Stuart Hameroff, originally an anaesthesiologist, took us on a dizzying tour of practically all of modern physics, leading us to the suggestion that consciousness is in some sense guiding the universe, including us; magic indeed! At the heart of his argument lay a now famous conjecture formulated in partnership with Sir Roger Penrose. The problem they confronted arises out of the anthropic principle which relates to the fine-tuning of nature's physical constants which together with fundamental laws of nature make order, life and

consciousness possible. He dismissed various hypotheses claiming to explain this extraordinary state of affairs, including the now popular multiverse theory, and postulated the theory that the activities of consciousness are not computable or merely epiphenomenal, but might be discernable as agencies in the signaling functions of microtubules which at a micro level emit micro-vibrations, and which at a quantum level appear to be involved in the propagation of information between neurons. They thereby help to orchestrate and integrate complex neuronal activity, and perhaps cast light on the so-called 'binding problem'. Stuart followed the 'strong' interpretation of the anthropic principle which can be interpreted as the claim that consciousness plays some essential role in the universe, and hence in its fine-tuning. This led Stuart to the conjecture that microtubules might provide a way to the solution of the so-called 'hard problem', for it is at this level that the non-computable collapse of the wave function gives rise to 'strange' phenomena such as non-local entanglement which not only point to the non-locality and internal coherence of the individual consciousness but indicate a wider entanglement with cosmological implications. In the words of Plotinus, at this point "we are within a world which is also within us".

Following this, **Dr Jeff Tollaksen**, Director of the Institute of Quantum Studies at Chapman University, USA, stepped nobly into an unforeseen gap in the programme. With a backward glance at Plato, Jeff suggested that we need to look beyond the empirical data of our five senses and work towards some kind of integrative level of explanation. The clue here might be found at the quantum level which appears to combine both reductive and holistic approaches. The problem at this level is that quantum theory seems to lead us into the clutches of paradox and contradiction. How can something be both a wave and a particle? Is there something wrong with the theory, or does the very paradox point to a deeper truth? And in any case why is there uncertainty here where determinism rules in the macro-world? Maybe time can help us, Jeff suggests. We may not be able to think two things at once at the same time, but time-lapse points to an escape from this limitation,

a process illustrated by the Necker cube which can be switched – in time - from one perspective to a contradicting other. The same for Schrödinger's cat: with time-lapse we can observe the cat both dead and alive, and thereby get the whole story. Even at the macro level, therefore, wholes defy reduction to the sum of their parts, and this in turn points to a more fundamental truth at the quantum level.

Taking a more practical and therapeutic approach to extended mind, **Dr Diane Corcoran**, past President of the International Association for Near Death Studies, explained how her life-long interest in NDEs began when serving as an army nurse in the Vietnam War where she discovered a high level of NDEs amongst serving soldiers, and later also among military veterans. She recalled that during that period such experiences were treated by military medics as

psychotic illnesses of some kind or at best as illusions. In time she came to see that these experiences were not pathological or even religious in the standard senses but rather life-changing episodes. They typically involved experiences such floating towards a beautiful new place, meeting friends and relatives, and experiencing complete joy, though some involved terror and disorientation. In many cases the experiences led to a radical changes in behaviour and outlook, in sensibilities and values, and loss of fear of death, as well as heightened emotional disposition, and enhanced feelings for nature, often positively benign in their outcomes, but at times leading to serious disorientation and family difficulties.

Dr Penny Sartori's experience was in many ways parallel to that Diane. As a nurse she too encountered many cases of NDEs in the military, and undertook the first prospective studies of this area in the UK, and now

lectures at Swansea University. She too discovered that these experiences often had transformative consequences, albeit not always favourable in themselves or in their longer term effects. Her encounter with her later co-author Kelly Walsh led to a series of case studies which not only confirmed and expanded her belief in the importance of these experiences as life-transforming, but convinced her of the wider therapeutic and spiritual implications of NDEs. She spoke of this as a 'benign virus' which had broad and profound implications not only for developments in mental health therapy, but also for our capacity to live together in a spirit of toleration, love and wisdom. And beyond that she speculated about possible implications for a wider expansion of human consciousness, a collective awakening, perhaps even evidence for the onward evolution of our species.

*John Clarke is a Vice-President and former Chair of the SMN. His latest book is **The Self-Creating Universe: the Making of a Worldview** (author name J.J. Clarke).*





Transformative Innovations for Health;

a gathering of change-makers

John Kapp

This event on 18th November 2017 was attended by about 80 people. It was held at the University of Westminster, London, and jointly organised by the University Centre for Resilience, the British Holistic Medical Association (BHMA) and the Scientific and Medical Network (SMN).

Bill Sharpe (International Futures Forum) introduced us to the '3 horizons (H) model' of planning innovations over time. H1 is the horizon viewpoint of those responsible for maintaining the functions of the organisation. H2 is the visions of a better system by innovative entrepreneurs (such as those present today). However, H1 managers resist engagement with H2s, seeing them as irritating people who distract them from getting on with their job. Nothing changes until H2 is allowed a fair trial, and to grow in parallel with H1. H3 is the new (H1') pattern when H2 has become fully operational, and the old H1 has disappeared.

Bill gave the example of the SHINE project, which has transformed health and social care for the widely scattered population in Fife, Scotland. H2s rethought what matters most, and devised micro-care enterprise solutions which were tried and are working, so are expanding.

This model can usefully be applied to the crisis in primary care, as a H2 versus H1 battle. The BHMA was founded in 1983 with a holistic H2 vision of incorporating the best of complementary medicine into the NHS, which was the message of Prince Charles in his keynote address to the health ministers of the world in the WHO conference in May 2006. This H2 vision was incorporated into law in the Health and Social Care Act 2012. However, the H1 drug-based medical model still rules supreme in the Clinical Commissioning Groups (CCGs). Supported by the vested interests of the trades unions and drug companies, they are willing to break the law and sacrifice the professions of General Practice and Nursing rather than allowing more outsourcing to H2 providers. They 'justify' this archaic

attitude as resisting 'privatisation', forgetting that drugs are provided by companies of dubious ethical standards.

We next heard about **transforming community health** by promoting healthy activities (such as growing food in gardens in GP surgeries) from Dr William House, (chairman of BHMA) speaking about Keynsham Action Network, (www.keynshamactionnetwork.co.uk) Ed Rosen, of Bromley by Bow, (www.bbbc.org.uk) and Dr Alyson McGregor of Lambeth GP food partnership (www.lgpfp.co.uk). These surgeries are beacons of social prescribing, showing how to maximise opportunities for patients to learn self care, and live life to the full in a vibrant community.

Rev Prof Stephen Wright, of the Sacred Space Foundation (www.sacredspace.org.uk) spoke on **making space for staff renewal**. This is badly needed as nursing vacancies hit a record high of 34,620 in the 3 months to Sept 2017 (about 10% of posts advertised) (Metro 24.1.18 p. 3). He said that healthcare staff need support through mindfulness, retreats, spiritual practice, faith, fellowship, fulfilling work, and freedom.

The next session was on **Healing and therapeutic transformation**, by Dr Paul Dieppe, professor of health and wellbeing at Exeter Medical School. (p.dieppe@exeter.ac.uk). He said that the system needs healing from alienation, and loss of meaning. This needs love, not science, and people need to feel safe, connected and creative, in a culture of nurturing, not flight/fight.

We then had a **world café session**, addressing 3 questions: Q1 Why do we need transformative innovations?



Q2 What and where are the seeds of transformative innovations? Q3 What transformative innovations are you part of? This got everyone so engaged and heated that David Peters had to get us to take a few deep breaths to centre ourselves.

I contributed the transformative innovations called for in the Better Care Fund legislation (July 2013). This called for CCGs to create **Community Care Centres** as mental A&Es, open 24/7 for crisis support, providing psycho-education for vulnerable patients, personified as Rachel (65, depressed and in sheltered accommodation) and Dave (40, alcoholic and homeless) The funding has increased annually since April 2015, and is presently £5.5 bn pa nationally, and £25 m pa for a typical CCG.

Despite this funding, in **Brighton and Hove** no Community Care Centre has yet been created, and no Rachel or Dave has yet been treated. This indicates that the crisis is nothing to do with money, but is caused by the refusal of commissioners to obey the law and change from the H1 medical (drug based) model to the H2 biopsychosocial model and commission talking therapies.

The mass exodus of doctors and nurses since 2015 may be explained by a tipping point when annual prescribing reached 1 bn monthly prescriptions, with half the population on 3 drugs continuously. This makes the NHS so toxic that generally the cures are worse than the disease, and are doing more harm than good with side effects. The solution is a culture shift to the H2 biopsychosocial (holistic) model, as the BHMA has been saying for the last 35 years. The CCGs should be called to

account by the councillors on the Health and Wellbeing Boards of the Councils, who should be lobbied.

Dr David Reilly spoke on 'mapping the human healing response; a foundation for the fifth wave of public and personal health'. He said he has left the NHS after 38 years, but is still puzzled by our capacity for healing, (activated self-compassion) and concludes that staff are indistinguishable from patients in what he called 'nature deficit disorder'.

Prof David Peters introduced the remaining speakers on 'transforming attitudes to birth, death and dying.' **Sophie Brigstocke** is a birth and post natal doula, and breastfeeding peer supporter (www.sophiebrigstocke.com). She gives emotional and practical support, and said that there is a crucial lack of midwives, and: 'it takes a village to raise a child'.

Hermione Elliott established *Living well dying well* in 2010, aiming to inform and re-empower individuals and communities

to make choices and take 'ownership' of death and dying. She developed the end of life doula certificated training and currently teaches the training throughout the UK. (www.livingwelldyingwell.net) She said that most people want a natural death, but it is rare, as it is usually over-medicalised as a 'death-prolonging exercise', which gives rise to 54% of complaints in hospitals.

Peter Fenwick is President of the SMN, and researcher in neuroscience, epilepsy, and the factors required for a growth in consciousness and the tapestry of living and dying. He quoted the near death experiences (NDE) of Paul Robertson, and said that there is now much evidence that NDEs are transcendent not brain based, as 90% 'go into the light.'

The NHS, and perhaps all public healthcare systems need innovative solutions to transform mental health, like those we were privileged to hear about at this gathering.

John Kapp is campaigner for a better mental health service (section 9 of www.reginaldkapp.org) johnkapp@btinternet.com.



Network News

NEW HONORARY MEMBERS

At its April meeting, the Board appointed the following additional honorary members, all of whom have spoken at Network meetings and made significant contributions to their fields of study.



Stanislav Grof, M.D., is a psychiatrist with more than sixty years of experience in research of non-ordinary states of consciousness. In the past, he was Principal Investigator in a psychedelic research program at the Psychiatric Research Institute in Prague, Czechoslovakia, Chief of Psychiatric Research at the Maryland Psychiatric Research

Center, Assistant Professor of Psychiatry at the Johns Hopkins University in Baltimore, MD, and Scholar-in-Residence at the Esalen Institute in Big Sur, CA.

Among his publications are over 150 articles in professional journals and the books *Beyond the Brain*; *LSD Psychotherapy*; *The Cosmic Game*; *Psychology of the Future*; *The Ultimate Journey*; *When the Impossible Happens*; *Healing Our Deepest Wounds*; *Modern Consciousness Research and the Understanding of Art*; *The Stormy Search for the Self*; *Spiritual Emergency*; and *Holotropic Breathwork* (the last three with Christina Grof).



Brian David Josephson FRS is a Welsh theoretical physicist and professor emeritus of physics at the University of Cambridge. Best known for his pioneering work on superconductivity and quantum tunnelling, he was awarded the Nobel Prize in Physics in 1973 for his prediction of the Josephson effect, made in 1962 when he was

a 22-year-old PhD student at Cambridge University. Josephson is the only Welshman to have won a Nobel Prize in Physics.

In the early 1970s Josephson took up transcendental meditation and turned his attention to issues outside the boundaries of mainstream science. He set up the Mind–Matter Unification Project at the Cavendish to explore the idea of intelligence in nature, the relationship between quantum mechanics and consciousness, and the synthesis of science and Eastern mysticism, broadly known as quantum mysticism. Those interests have led him to express support for topics such as parapsychology, water memory and cold fusion, and have made him a focus of criticism from fellow scientists.



Dean Radin, Ph.D. is Chief Scientist at the Institute of Noetic Sciences and Associated Distinguished Professor of Integral and Transpersonal Psychology at the California Institute of Integral Studies. He earned an MS in electrical engineering and a PhD in psychology from the University of Illinois, Urbana-Champaign. Before

joining the research staff at IONS in 2001, he held appointments at AT&T Bell Labs, Princeton University, University of Edinburgh, and SRI International. He is author or coauthor of hundreds of technical and popular articles, four dozen book chapters, and four popular books: *The Conscious Universe* (1997), *Entangled Minds* (2006), *Supernormal* (2013), and *Real Magic* (2018).



Elisabet Sahtouris Ph.D. is an internationally known evolution biologist and futurist, speaking on all five continents; teaching Living Economies and Navigating our Current Crises. With a post-doctoral degree at the American Museum of Natural History, she

taught at MIT, the University of Massachusetts, contributed to the NOVA-Horizon TV series, is a fellow of the World Business Academy with an honorary Chair in Living Economies, and an advisor to Ethical Markets. Currently a Professor in Residence at Chaminade University in Honolulu, she has convened international symposia on the Foundations of Science in Hokkaido and Kuala Lumpur. She is the author of *EarthDance: Living Systems in Evolution*, *A Walk Through Time* and *Gaia's Dance: The Story of Earth & Us*, and is co-author with Willis Harman of *Biology Revisioned*. Dr. Sahtouris is also a co-founder of the WorldWide Indigenous Science Network, a Fellow of the Findhorn Foundation, and has appeared in numerous films.



Marilyn Schlitz, Ph.D. is a social anthropologist, researcher, award winning writer, and charismatic public speaker. She serves as President Emeritus and a Senior Fellow at the Institute of Noetic Sciences. Additionally, she is a Senior Scientist at the California Pacific Medical Center, where she focuses on health and healing, and board member of Pacifica Graduate Institute. For more than three decades, Marilyn has been a leader in the field of consciousness studies. Her research and extensive publications focus on personal and social transformation, cultural pluralism, extended human capacities, and mind body medicine. Her books include: *Consciousness and Healing: Integral Approaches to Mind Body Medicine*; *Living Deeply: The Art and Science of Transformation in Everyday Life*; and *Death Makes Life Possible*. She also wrote and produced a feature film, *Death Makes Life Possible*, with Deepak Chopra, that has appeared on the Oprah Winfrey Network. She is currently creating enrichment programs for life long learning and health professionals.



Professor Charles T. Tart Ph.D. received his Ph.D. in psychology from the University of North Carolina at Chapel Hill in 1963. He is Professor Emeritus at the Institute of Transpersonal Psychology in Palo Alto and Psychology at the University of California at Davis, and is internationally known for his research with altered states

of consciousness, transpersonal psychology, and parapsychology. Tart is the author of 250 academic papers and 13 books feature two that have been called classics, viz. *Altered States of Consciousness* (1969) and *Transpersonal Psychologies* (1975). Other books include *States of Consciousness* (1975), *Psi: Scientific Studies of the Psychic Realm* (1977), *Living the Mindful Life*, (1994), and *The End of Materialism: How Evidence of the Paranormal is Bringing Science and Spirit Together* (2009) now available in paperback as *The Secret Science of the Soul* (2017). As well as a laboratory researcher and popular teacher, he has been a student of Aikido, in which he holds a black belt, of meditation, of G. I. Gurdjieff's work and other psychological and spiritual disciplines. He also convenes The Archives of Scientists' Transcendent Experiences (TASTE) (www.issc-taste.org). Full information is available at www.paradigm-sys.com.



Alan Wallace Ph.D. began his studies of Tibetan Buddhism, language, and culture in 1970 at the University of Göttingen and then continued his studies over the next fourteen years in India, Switzerland, and the United States. During most of that time he trained as a Tibetan Buddhist monk, ordained by H.H. the Dalai Lama, for whom he has often served as interpreter. After

graduating summa cum laude from Amherst College in 1987, where he studied physics and the philosophy of science, he went on to earn his Ph.D. in religious studies at Stanford University in 1995. He then taught for four years in the Department of Religious Studies

at the University of California at Santa Barbara and is the founder and president of the Santa Barbara Institute for Consciousness Studies (<http://sbinstitute.com>). He has edited, translated, authored, and contributed to more than forty books on Tibetan Buddhism, medicine, language, and culture, and the interface between science and Buddhism, including *Meditations of a Buddhist Skeptic: A Manifesto for the Mind Sciences and Contemplative Practice*, *Mind in the Balance: Meditation in Science, Buddhism, and Christianity*, and *Hidden Dimensions: The Unification of Physics and Consciousness*.

GALILEO COMMISSION

When Galileo looked through his telescope, he affirmed that Copernicus was right - we are not at the centre of a Cosmos that revolves around us, but instead we are revolving around the sun. Many in the Church were reluctant to hear this, because it opposed the established belief system and power structure. When Cardinal Bellarmine was invited to look through the telescope and see for himself, he is said to have told Galileo that he preferred to believe the authority of Scripture rather than investigate the evidence.

This has striking parallels today. For example, many scientists are unwilling to look at the evidence for consciousness beyond the brain because they have an unshakeable belief that consciousness is generated in the brain. Often, it is the authority of science and the fear for their reputation that prevents them from expanding their worldview. Bellarmine was worried that the infallibility of Scripture was at stake. Today the infallibility of scientific materialism is at stake.

The world today is dominated by science and by its underlying assumptions, which are seldom articulated and thus generate not only a methodology, but also a world-view or philosophy. While scientific methodology is a set of evolving rules, socially negotiated among scientists, this scientific world-view is a quasi-religious set of assumptions about the world, generally known as 'scientism'. We fully support scientific methodology, but we are critical of scientism - those assumptions that underpin the current scientific world-view.

We have set up the Galileo Commission as a Network project. Its remit is to open public discourse and to find ways to expand science, so that it is no longer limited by an outmoded view of matter and physical reality, and so that it can accommodate and explore important human experiences and questions that science, in its present form, is unable to accommodate.

After widespread consultation, the first stage of the Commission's work is to produce a report in the autumn of 2018 that will draw on the great variety of work that has already been done, and will make practical recommendations on a way forward and provide a comprehensive list of resources. The lead author of the report is Prof. Dr. Harald Walach, who has expertise in history and philosophy of science, psychology, parapsychology and complementary medicine. We will be holding a public launch of the report on the evening of Friday, September 7 – details will be sent out in our electronic newsletter. See also submissions under Members' Articles.

APPOINTMENT OF DIRECTORS, 2018

Nicholas Pilbrow writes: During the year Dr. **Joan Walton** was co-opted as a director and Dr. **Edi Bilimoria** resigned due to pressure of other responsibilities. He has been a director for many years and his presence will be greatly missed. He hopes, however, to be able to rejoin the Board when circumstances permit and stands ready to help when required in the interim.

Each year one third of the member appointed directors, who have served the longest, retire by rotation and all the co-opted members. They are, if they wish, eligible for re-election or co-option. The directors retiring by rotation are thus, **Mr Paul Kieniewicz** (2015), **Dr Paul Filmore** (2016 – Chairman) and **Dr. Joan Walton** (2017). All those retiring are eligible for re-election or co-option and all have indicated their wish to continue. The remaining Directors are **Mrs. Jacqueline Nielsen** (2005), **Mr. Tuvi Orbach** (2014) and **Mr. David King** (2016).

There are now up to seven possible vacancies for Directors to be elected at the Annual General Meeting and two current applications. Of particular concern to the company is the continuing vacancy for a Treasurer and great importance is being given to filling this role. There are three further vacancies available by co-option by the Board.

Members who wish to be considered for these vacancies are requested to apply by the end of May, 2018 by sending their C.V. and a short note on how they see themselves contributing to the aims of the Network. This will enable the Board to consider how they would match the tasks to be performed and, where appropriate, make recommendations to the members. If there are more applicants than vacancies, a vote will be taken at the Network AGM at the beginning of July. The members of the company will follow the recommendations of the Network AGM, unless there is good reason not to do so. Applications should be sent to The Secretary, Scientific and Medical Network, Colet House, 151 Talgarth Road, London W14 9DA.

MEMBERS' NEWS

Dr. Michael Evans Open Seminar, University of Westminster June 8th-9th

Is there a place for "Spirit" in Science and Medicine?
Science and Research Methodology in Anthroposophic Medicine

Prof. Peter Heusser will give a series of contributions based on his book *Science and Anthroposophy*.

Prof. David Martin will give an overview of the research activity related to Anthroposophic Medicine on the Continent and **Prof. Gene Feder** and **Dr. David McGavin** will describe two research projects in the UK. A plenum will be chaired by **Prof. David Peters**

At a time when reductionist and mechanical views of the Human Being dominate our Society and Medicine and more holistic approaches are being attacked in the name of Science, this seminar gives the opportunity to hear the scientific and epistemological foundations of another paradigm

Register and pay on line at www.elysiahealth.org or send a cheque made out to *Anthroposophic Doctors Training* for £120 with your name and contact details to Dr Michael Evans at Rock Cottage Main Road Whiteshill Stroud Glos. GL6 6JS, from whom programmes and registration forms can be obtained. Email michaelrevans@btinternet.com

TIM Freke's Emergent Spirituality
Online Experiential Philosophy Course: 21 short films and 8 contemplation exercises

Contemporary society is experiencing a 'soul crisis', caused by the demise of outdated religion and the rise of hard-headed science, which has left us adrift in a purposeless cosmos, waiting for a meaningless death. In this online course, based on his leading-edge book *Soul Story*, pioneering philosopher Tim Freke offers a bold alternative to this bleak worldview.

With his characteristic clarity Tim explores a new philosophy he calls 'Emergent Spirituality', which reconciles evolutionary science with perennial spiritual insights, by suggesting that everything is emerging into existence through the evolutionary process, including

those qualities of life considered 'spiritual'. The result is a 'Copernican Revolution' in our understanding of the nature of the universe and the purpose of life.

Ervin Laszlo "Tim Freke addresses the deepest question of life and existence in clear and understandable terms - with transparent logic and without dogmatism."

Anyone interested in exploring these questions in company with the expert and even enlightened guidance of Tim Freke will gain lasting benefit - fresh insights that will enrich his or her life for the rest of his or her life."

WATCH THE TRAILER <http://bit.ly/2FjJzqX>
SPECIAL OFFER right now only £30!
FIND OUT MORE <http://timfreke.com/ONLINE-COURSE.aspx>

LOCAL GROUP REPORTS LONDON GROUP



CLAUDIA NIELSEN – 0207 431 1177,
claudia@cnielsen.eu

To read reports from other meetings, go to the REPORTS page of the London Group page of the Network's website. If you don't live in London but wish to be advised of London events, please drop me an email and I shall add your e-address to the circulation list.

■ JANUARY 2018

Our first speaker of the year was Programme Director of the SMN, **David Lorimer**. David is amongst others, the founder of Character Education Scotland, founding member of the International Futures Forum and was editor of its digest, *Omnipedia – Thinking for Tomorrow*. He is also author and editor of over a dozen books. The title of this evening's presentation was *Gnosis, Initiation and Transformation*. David started by talking about the two approaches within Christianity, *pistis* which is faith and *gnosis* which includes faith



but goes beyond it, incorporating direct experience as a source of knowledge. We heard briefly about the early Gnostics who posed a direct threat to the authority of the Church because they followed their own internal authority. Gnosis was always going to be for the few as the strict initiation training would naturally exclude the many. The principles of gnosis

have been expressed by many mystics and thinkers over the centuries, and David gave us select quotes from a number of those addressing gnosis, initiation and transformation, including:

Gnosis

Clement of Alexandria: *Faith is a compendious knowledge of the essentials, but gnosis is a sure and firm demonstration of the things received through faith and scientific certainty.*

Plotinus: *We are within a reality that is also within us.*

Gospel of Thomas: *The Kingdom is inside of you and it is outside of you. When you come to know yourselves, then you will be known, and you will realise that you are the sons of the living Father.*

Elaine Pagels: *Gnosis as self-knowledge and knowledge of the Self. Insight. To know oneself at the deepest level is simultaneously to know God.*

David Hawkins – *the Self is its own message and truth can only be realised, not explained.*

Initiation

Mircea Eliade: *Initiation lies at the core of any genuine human life. And this is true for two reasons. The first is that any genuine human life implies profound crisis, ordeals, suffering, loss and reconquest of self. "death and resurrection". The second is that, whatever degree of fulfilment it may have brought him, at a certain moment every man sees his life as a failure.*

Plato: *To die is to be initiated.*

Transformation

Walter Russell: *The rhythm of life is to unfold from the One, the unmanifest, the invisible into the Many, the manifest, the visible and then to re-fold back into the One. This is birth, awakening, emergence, creation, individualisation followed by a return in terms of sleep, decay, disintegration and death. The Creating Universe grows out of the One in a radial fashion, ultimately disappearing back into the One.*



■ FEBRUARY

This month we welcomed **Tim Freke**, author of 35 books, who spoke here some 16 years ago, on one of his first books, *The Jesus Mysteries*. This talk was about his most recent book, *Soul Story*. Kicking off his shoes and pulling his shirt out of his trousers for more freedom, Tim shared with us with energetic enthusiasm

his theory about evolution. A few words are key for his theory and were repeatedly drawn upon to explain his views: evolution, potentiality, information, process, imagination and time. And of course, soul. We did not hear the word consciousness mentioned once.

At the core of his theory is his perspective on time, which he points out does not pass, but accumulates. Time is not an illusion, it is very real. Every moment is a meeting of the past with the possible, therefore the arrow of time is

unidirectional. In every moment some potentiality becomes realised. The universe has come into being all those billions of years ago and is itself a process. The process is to bring ever more potentialities into being moving towards ever greater complexity. Out of this process, also understood as *emergence*, soul or psyche emerged from the potentiality of the universe. The quality of soul is awareness, its tool imagination and its eye is attention. Through imagination we bring potentials into being. Psyche or soul exists in a different dimension where love is the central experience (which he himself has experienced from a very early age).

We experience the world in two realities: the material and the psychic. Stories are the language of the soul, consequently we have two stories addressing these realities, science and spirituality. Soul is immortal and central. The universe is objective information, subjectively experienced. The body is biological information changing in time. We however stay the same at the level of our essence. Soul has its origin in the body but transcends it. To understand the world and the reality we live in, we use stories. With stories comes magic, synchronicities, understanding. This is how the universe experiences itself. It has no purpose other than realising ever more emergent potential. And our purpose is the same, to realise the most emergent potential we have. God has also emerged from the evolution of the universe and continues to evolve, as with other potentialities coming into being. Tim's central message is that life is good, death is safe and what really matters is love!



■ MARCH

Rupert Sheldrake, old friend and honorary member of the SMN was our speaker this month. Rupert is a biologist and author of more than 85 scientific papers and 12 books including his latest *Science and Spiritual Practices*, which was the theme of his presentation this evening. In this book Rupert

explores the scientific interest that has blossomed around spiritual practices since late 20th Century. Many research papers have been published showing the benefits of spiritual practices to health and happiness. In addition, we know that some high profile academics who are overtly atheist such as Sam Harris and Susan Blackmore, have taken up meditation and promote their benefits. This interest has spread to other areas, for instance media personality Russell Brand openly in his podcast, about spirituality which he embraced following the 12 step programme he engaged in to deal with his addiction. He has an audience of more than 750 thousand mostly young people.

By validating spiritual practices, science is giving it a seal of approval which our scientific paradigm requires. Rupert identified six spiritual practices which he himself undertakes: gratitude, meditation, nature, singing/chanting, rituals and pilgrimages. In this brief overview, starting with *gratitude*, he pointed out that thanksgiving is at the root of all religions. Research shows that being grateful correlates positively with happiness and by contrast the opposite, taking things for granted and feeling entitled correlates with unhappiness. *Meditation* was introduced to the West by theosophists in the 19th Century. In the mid 1950s we saw the arrival of Zen Buddhism and in the 60/70s we saw the rise in popularity of Transcendental Meditation (TM).

The book *The Relaxation Response* by Herbert Benson in the mid 1970s endorsed meditation as beneficial to health

and in the late 70s professor of medicine Jon Kabat-Zinn realised the benefits of mindfulness to patients and started a world wide revolution in the treatment of stress and anxiety. *Singing and chanting* is a practice found in every spiritual tradition and drawing on the work of his wife, Jill Purce, Rupert invited us to experience in the body the resonance of chanting different vowels.

We then experimented with *amyn*, similar to the mantra *om* (or *aum*), which lost its powerful resonance as it

became translated into *amen* in the Judeo-Christian tradition. Mantras resonate in the body, with other people and through morphic resonance across time. And finally we heard about *pilgrimage* as an ancient practice, probably started as people followed their animals in their movement. Many pilgrimage paths are being revived all over Europe but they have on the whole lost their religious aspects and are more about connection with the land. In fact, tourists are, Rupert told us, frustrated pilgrims!

MEMBERS' ARTICLES AND ARTICLES OF INTEREST

Available through the editor or through links – dl@scimednet.org

GALILEO COMMISSION

Jorge Ferrer:

- *Embodied Spiritual Enquiry* – 17 pp.
- *Empiricist Colonisation* – 18 pp.
- *Transpersonal Psychology, Science and the Supernatural* – 35 pp.
- *The Participatory Turn* – 85 pp.

Harald Walach:

- *Secular Spirituality – what it is. Why we need it. How to proceed* – 15 pp. from *Journal for the Study of Spirituality*
- *Criticisms of Transpersonal Psychology and Beyond—The Future of Transpersonal Psychology, A Science and Culture of Consciousness* – 26 pp.
- *Reconstructing the Meaning Effect – The Capacity to Self-Heal Emerges From the Placebo Concept* – 29 pp.
- *Parapsychological Phenomena as Examples of Generalised Nonlocal Correlations—A Theoretical Framework (with Walter von Lucadou and Hartmann Romer)* – 27 pp. from *Journal of Scientific Exploration*, Vol. 28, No. 4, pp. 605–631, 2014

Prof Brian Josephson FRS

- *Pathological Disbelief – slides from a Nobel Laureates Presentation, Lindau 2004*

Stanislav Grof MD

- *Revision and Re-Enchantment of Psychology: Legacy of Half a Century of Consciousness Research* – 27 pp.
- *What is Reality? The New Map of Cosmos and Consciousness* – 16 pp.

Dr. Michael Grosso

- *Questions Concerning the Galileo Commission* – 4 pp.

Dr. Edi Bilimoria

- *Galileo Response with Charts* – 5 pp.

Hardin Tibbs

- *Some Thoughts about the Future of Scientific Observation* – 5 pp.

Donovan O'Shaefer

- *Reason, Emotion and the Limits of Science* – 10 pp.

Bryan Hammersley

- *The Discrediting of Beliefs is not always Well Founded* – 22 pp.
- *The Surprising World of Parapsychology* – 3 pp.

SCIENCE-PHILOSOPHY OF SCIENCE

Peter Scarisbrick

- *Reality and Consciousness: Process and Holons rather than Particles and Space?* – 23 pp.

MEDICINE-HEALTH

Barbara Montgomery Dossey, Deva-Marie Beck, Sarah Oerther, and Phalakshi Manjrekar

- *Florence Nightingale's Legacy: The Rationale for an Integral Worldview in Achieving the Sustainable Development Goals* – 30 pp.

Priscila Cacola

- *Physical and Mental Health of Children with Developmental Coordination Disorder* – 6 pp. from *Frontiers in Public Health*

Mark O'Matthews

- *For all the Benefits of Modern Medicine, is the Population at Large Becoming Healthier?* 7 pp.

PSYCHOLOGY-CONSCIOUSNESS STUDIES

John C. Gibbs, PhD

- *Tucker, Stevenson, Weiss, and Life: Renditions of the Transcendent View From Past-Life Memories*

Rudolf H. Smit

- *Book review of The Science of Near-Death Experiences by John C. Gibbs* – 11 pp.

Kenneth Ring

- *Waiting to Die Parts 2 and 3* – 5 pp. and 4 pp

AK Mukhopadhyay MD

- *Artificial Intelligence, Human Intelligence and Intelligence of Nature: Difficult Questions in their Ambitious Fusion* – 16 pp.

PHILOSOPHY-SPIRITUALITY

Ursula King

- *Beyond West and East: Science, Spirituality and Mysticism in a Global World* – 23 pp. presented at *Mystics and Scientists 2018*

Bhakti Niskama Shanta, Ph.D.

- *Missing Personhood: Has Science Taken the Wrong Turn?* – 12 pp. presented at *Mystics and Scientists 2018*

Bhaktivijnana Muni

- *Towards a more Harmonious Concept through the synthesis of Vedanta and Science* - 12 pp. presented at *Mystics and Scientists 2018*

GENERAL

Dr Oliver C. Robinson

- *A Longitudinal Mixed-Methods Case Study of Quarter-Life Crisis during the Post-University Transition: Locked-Out and Locked-In Forms in Combination* – 31 pp.

Ivana Zagorac

- *One World or None: Albert Schweitzer as a Peace Activist* – 11 pp.

John Scales Avery

- *Flaws in the Concept of Nuclear Deterrence* – 10 pp. from *Cadmus*, 2012

Anne Baring

- *Review of John Scales Avery's book Nuclear Weapons: an Absolute Evil* – 11 pp.

Ira Helfand MD

- *Two Billion at Risk: Global Impacts of Limited Nuclear War on Agriculture, Food Supplies, and Human Nutrition* – 23 pp.

ONLINE ARTICLES FROM ANTHONY JUDGE

- *Earth as a Shithole Planet?*
Understanding why there are no extraterrestrial visitors
<https://www.laetusinpraesens.org/musings/shithole.php>
- *Infertility as a Metaphor Heraldng Global Collapse*
Essential impotence disguised by performance and "being great again"
<https://www.laetusinpraesens.org/docs10s/infert.php>
- *30 Questions that Facebook has yet to Answer*
Gaps in the testimony of Mark Zuckerberg at a US Senate hearing?
<https://www.laetusinpraesens.org/docs10s/facebook.php>
- *Exhortation to We the Peoples from the Club of Rome*
Review of "Come On! -- Capitalism, Short-termism, Population and the Destruction of the Planet"
<https://www.laetusinpraesens.org/docs10s/comeon.php>



NEWS AND NOTICES

ALBION - EXPLORING BRITISH SPIRITUALITY

www.albion.co.uk

This site explores the essential ideas contained in British spirituality. It acknowledges the central role played by key forerunners and the emergence of many positive forward thinking organisations, including the SMN. You will find links to these projects plus a wonderful directory of forty-four sacred sites from Callanish in the north of Scotland to St Michael's Mount in Cornwall.

You will discover stories of legends, myths and histories that combine to illuminate our understanding of the ancient name for Britain, Albion, for when Albion awakes the long sleep will be over. It provides a window into an amazing unfoldment of spiritual wisdom with many links to publications, books, maps and further information.

FINAL WORDS PROJECT

Dr Raymond Moody writes: A few years ago, I wrote *Glimpses of Eternity*, which introduced readers to shared-death experiences (SDEs). As you know, I followed this thread of inquiry through my own research with Lisa Smartt and The Final Words Project (www.finalwordsproject.org). I am now delighted to report that a new research project into shared-death experiences is underway.

It is being conducted by William Peters (the Director and Founder of the Shared Crossing Project) and Dr. Michael Kinsella (faculty member at Central Michigan University). They are currently interviewing people that have had shared death experiences. If you have one to describe, please contact William and Michael. Their website is <http://www.sharedcrossing.com>.

BRUCE NIXON – THE 21ST CENTURY REVOLUTION

Bruce writes: Readers of the review may be interested to know that I now write blog-posts <http://www.bruce-nixon.com/21stCenturyRevolution.html> to keep the book up-to date. Most of these are about radically reforming and re-imagining our outdated democracy. I see the flaws in our democracy as one of the biggest obstacles to progress. As usual I offer solutions and make many suggestions as to what people can do.

For example *Re-imagining politics*

<https://bruce-nixonblog.wordpress.com/2018/01/18/re-imagining-politics/> . Of course, vested interests will continue to obstruct these efforts as they have done for generations, but they are becoming irresistible. Women in particular, supported by men, are now leading the charge in the centenary year of their getting the vote. For example campaigns such as Make Votes Matter <https://www.makevotesmatter.org.uk/> , 50:50 Parliament <https://5050parliament.co.uk/> , Counting women in <http://www.cfwd.org.uk/current-projects/counting-women-in> . Another important movement is Compass for a good society <https://www.compassonline.org.uk/> .

book reviews

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SCIENCE-PHILOSOPHY OF SCIENCE

NEW THINKING IN EVOLUTION

Edward James

■ THE MYTHOLOGY OF EVOLUTION

Chris Bateman

Zero Books USA, 2012,
265 pp., £14.99, p/b-
ISBN 978-1-78099-649- 3

Chris Bateman offers in this book a set of myths (metaphors or stories) which he suggests are at the base of evolutionary theory as currently understood, believed and explained by specialists. For each myth he puts down, Chris supplies an alternative contra-view which, he suggests, should replace his original description of the myth. Chris suggests seven possible myths which are commonly quoted as givens in most books and papers published today.

Bateman's Myth 1 concerns an imagined ladder of progress. The use of 'Ladder' seems to presume some sort of upward and directed progress as time goes on. Contra-view on Myth 1: Many unwarranted assumptions are embedded in this idea. Though few scientists might explicitly believe this today, it still runs rampant in much popular science fiction.

Chris suggests that we should replace the idea of a 'ladder' with his alternative contra-view. Instead of referring to a ladder, we should refer to a chain of inheritance, which seems to connect all life together into one complex process, with no defined top point which can be labelled as 'progress'. Nor indeed any clarity between each event which we might label as a 'step'.

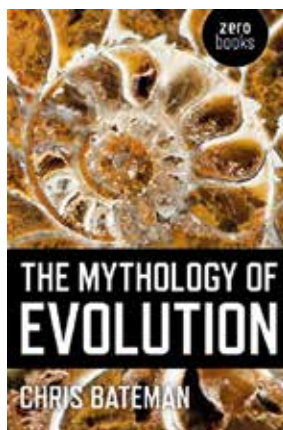
Myth 2 lies in the phrase survival of the fittest, initially due to Herbert

Spencer, though nowadays we may want to call it Social Darwinism. Contra-view: Myth 2 seems to be either self-evident, what actually survives is that which survives; or it actually wrong. Who knows which? But that is not our present concern. Bateman suggests that we should use instead the phrase Refinement of Possibilities, which living beings seem to develop for coping with life, and so somehow encourages the survival of their whole species.

Myth 3 is contained in the phrase Selfish Gene, much used in the earlier writings of Richard Dawkins, which insists that the continuation of any species can be totally explained using only genes. Contra-view: Dawkins has obviously changed his mind on this issue, and his own later writings move to a very different and apparently opposing view; that collaboration between any two species could lead to the survival of both species. Bateman suggests that Dawkins' original phrase should be replaced by the idea that all the characteristics of a species, including its genes, could have advantages which persist among its successors.

Myth 4 is the idea of Kin Selection. This is related to Myth number 3, but is more general. How can the Genes or anything else which might cause any particular member of a group to do better in life have any effect on the success or failure of the species as a whole? We don't know. And there are many other problems with this view as well. Contra-view: Chris suggests that this myth hides a much more important concept, that co-operation and trust between family members gives an advantage to the survival of the species as a whole.

Myth 5 says that Design is found in Nature. Contra-view: Arguers about Design seem unaware that Kant showed up clearly the limitations of this concept over 200 years ago. But looking harder, the phrase hides the



useful metaphor of Nature suggests an Intelligent Designer, which should be used instead.

Myth 6 is the concept of Adaptationism. This is the belief that we can completely explain life using only the principles of Natural Selection, whatever they might be. Contra-view: Life seems to continue as a consequence of some necessary conditions, but what is Natural Selection? We can say only that continuing life seems to be subject to some conditions, of which we are not fully aware.

There is a final Myth 7, which extends beyond Science, unlike the previous six which concern only Evolution. Bateman's Myth 7 is that only Science is True. Contra-view: True ideas arise only from Stories, that is, fictitious metaphors conceived in the mind. In fact, our minds can model reality only by constructing such stories. So 'Truth' can be approached, like other all-embracing ideas only as a story in our minds, that is, a fiction.

The reviewer would agree with Bateman in that I would prefer Bateman's contra-views to the beliefs described in the original myths which he enumerates. And I would also hope to see Bateman's philosophy further developed than that presented in this book.

I would personally regard every aspect of the scientific outlook as parts of a giant story, myth or Metaphor. And I would suggest that specialists have generally failed to consider any alternative and wider view of reality beyond the story of Science in which they place their faith and trust for all their work.

Many scientists might claim not to believe anything except those facts which are demonstrated by repeatable experiments. Yet they are curiously opposed to testing their theory that science is 'true' in some absolute sense. In fact, they seem to brook no discussion about their views on this problem. I would suggest that their attitude is very close to those who do not allow their theological views to be questioned. And I would not regard the Story of Science (the Science Myth) as any truer than any of the many other stories or myths we seem to need to live by as we travel a complex path through what we call reality.

I would also add the problem of the language barrier to the many raised by Bateman here. I would suggest that all theories which can be conceived by humans can be explained to another person only through talking to them, that is, by using words to describe the new idea. Any theory in the mind of a scientist can be transferred to the mind of another human only by using words which the other one already 'understands', that is, with which they are already familiar. But if one is trying to explain a brand new idea to another human, then there may not be any familiar words available to you.

This means that you must fall back on metaphors ("A is like B"), which can only suggest a certain 'likeness', something hopefully close to what you are trying to explain, but not identical to what you are aiming at. The group of metaphors describing what you are trying to transmit is a myth. But any myth is not true absolutely; It can only be a traditional story which gives the gist of what its supporters want to transmit. We should be grateful to Chris Bateman for his close examination of terms that are commonly used in traditional evolutionary theory without examination and also for the alternative views which he presents.

Edward James is a retired computer specialist from Imperial College, and has now moved on to writing mainly on the philosophy of science and theology.

PRESUPPOSITIONS ARE NOT PROPOSITIONS

David Lorimer

■ AN ESSAY ON METAPHYSICS

R.G. Collingwood

Martino, 2014 (Clarendon Press 1940), 354 pp., £15, p/b – ISBN 978-1-61427-615-9

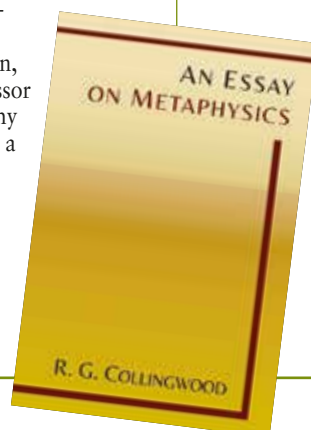
R. G. Collingwood (1889-1943) was a philosopher, archaeologist and historian, who was Waynflete Professor of Metaphysical Philosophy at Oxford. His father was a painter and archaeologist, and between 1911 and 1934 he concentrated on archaeology, becoming the leading authority of his time on Roman Britain. Interestingly, he

painted and composed music throughout his life. I was alerted to this book by reading Harald Walach's contribution to *The Wiley Blackwell Handbook of Transpersonal Psychology*, reviewed in the last issue. In correspondence with Professor John Dupré and Dr Iain McGilchrist, I discovered that they had both read the book at school at the age of 16 - at the time, John was a scholar at Eton and Iain a scholar at Winchester. I wonder how many 16-year-olds would even know about - still less think of reading - such a book these days?

There is no doubt in my mind that the book is a seminal one for philosophy of science and should be much more widely known in the field. It consists of five parts, namely metaphysics beginning with Aristotle, anti-metaphysics, the existence of God, the metaphysics of Kant, and causation. As Collingwood says in his first sentence, this is not so much a book of metaphysics as a book about metaphysics, taking as it does a historical approach to the question of absolute presuppositions taken for granted by thinkers in particular cultures or periods. He begins by explaining that metaphysics is what Aristotle called First Science (by which he means a body of systematic or orderly thinking about a determinate subject-matter) and is logically prior to any other science, but in terms of order of study it is the Last Science - 'the ultimate goal of the scientist's pilgrimage through the realms of knowledge.' (p. 9) It is the 'ultimate logical ground to anything that is studied by any other science.'

He dismisses his first definition of metaphysics as the science of pure being on the grounds that there is no definite subject-matter to think about. This made me reflect on the Indian Advaita tradition or the notion of pure consciousness, which is beyond his scope but can nonetheless be explored experientially. He settles on his second definition of metaphysics as the science which deals with the presuppositions underlying ordinary science. It is important to stress and that the priority affirmed by the word presupposition is a logical priority that its logical efficacy does not depend on the truth of what it's being supposed, *but only*

on is being supposed. In that sense, it is taken for granted, and an absolute presupposition always remains such, and is never an answer. This accounts for what he calls being ticklish in one's absolute presuppositions when they are questioned - they are not verifiable, but simply taken for granted, like the notion of law or cause.



Perhaps Collingwood's key insight is that absolute presuppositions are not propositions as they are never answers to questions, which themselves contain presuppositions. Think, for instance, of David Chalmers' 'hard problem of consciousness' when he asks how the brain generates consciousness. This question presupposes that the brain does indeed generate consciousness, so for him, this is an absolute presupposition, as it is for most neuroscientists, philosophers and psychologists. As Collingwood states, 'the answer to any question presupposes whatever the question presupposes... And because all science begins with a question (for the question is logically prior to its own answer), all science begins with a presupposition.' (p. 63) This statement could not be more important, and also underlies the work of Nicholas Maxwell, as related in my review of his *Understanding Scientific Progress* in No. 124.

Collingwood takes a historical approach to presuppositions as they change and develop over time and in different cultures. In passing, he gives the example that in modern physics the notion of cause has disappeared and has been replaced by laws. The job of the metaphysician is to establish the nature of absolute propositions as historical facts. In this respect, a special characteristic of modern European civilisation is its denial of the existence of absolute presuppositions. He distinguishes carefully between the meaning of fact as belonging to historical thought and its questionable elision with truth. This brings him to what he regards as the fundamental logical fallacy of positivism - its denial of absolute presuppositions - that '*what are in fact suppositions they consistently misunderstood as propositions.*' (p. 147, my italics)

The classic textbook example is A.J. Ayer's *Language, Truth and Logic*, published in 1936 when the author was only 24. Ayer maintained that any proposition which cannot be verified by appeal to observed facts is a pseudo-proposition; and since metaphysical propositions cannot be verified by appeal to observed facts, they are pseudo-propositions and therefore nonsense. Collingwood remarks that this attack on metaphysics is in fact an attack on pseudo-metaphysics on the grounds that Ayer commits the characteristic positivistic error of converting metaphysical propositions about the history of absolute presuppositions into pseudo-metaphysical propositions, thus committing the blunder of mistaking suppositions for propositions and therefore inferring that logical efficacy belongs only to propositions. This is characteristic of the whole Vienna School and has morphed into modern scientism

that continues to deny its own status as a presupposition or belief system. Ironically, then, any attack on metaphysics in this true sense is an attack on the foundations of science. Proof depends upon presuppositions, not presuppositions on proof.

Collingwood goes on to discuss the relationship between presuppositions in Christian patristic theology with those later adopted by natural science. For these early theologians, God is an absolute presupposition, not a proposition that can be proved true or false. Logically, therefore, denial of the existence of God is also an absolute presupposition, although modern atheists treat it as a proposition they argue is falsified by the findings of natural science. This leads on to a fascinating and important discussion of polytheistic and monotheistic science, relating monotheism to the development of Greek philosophy in its quest for what he calls a monomorphic science arguing that the world is one - think of Thales in his search for a single unifying principle of nature, leading to the presupposition that nature is one, and later that science is one - hence the interest for Aristotle and his successors of reconciling the one with the many. For theologians, there is one God and many modes of God's activity; this develops structurally into the presuppositions of natural science about the oneness of nature and the universality of laws applying to many different realms. For Galileo, it was an absolute presupposition that the book of nature is written in the language of mathematics; this is not a proposition that can be rendered true or false even if pragmatically its validity can be affirmed by its efficacy - 'it works'. Historically underpinning this is the idea of God, Logos or Kosmos as an ordering principle. Likewise, the idea that nature is continuous or the indestructibility of substance cannot be conclusively proved, only presumed.

There is a long and technical section on the metaphysics of Kant, followed by a useful discussion of different meanings of the term cause, as historically developed. Here Collingwood argues that its fundamental sense relates to a free and deliberate act on the part of a conscious and responsible agent, and that the secondary and tertiary definitions are underpinned by the primary definition. The importance of this point goes back to Aristotle's distinction between efficient and final cause - *causa quod* and *causa ut* - where final cause implies intention and, implicitly, free will. Naturalistic science tends to invert this priority with its causally closed physical system logically implying determinism and therefore denying free will. We all experience free will subjectively, even if science denies

this objectively and places itself inside a *reductio ad absurdum* loop whereby we cannot logically take seriously their proposition that everything is determined, because their own opinions are equally so.

I hope that the foregoing has conveyed something of the seminal importance and relevance of this book, and that some readers will now consult or return to the original text.

MEDICINE-HEALTH MOVING TOWARDS WHOLENESS

Gunnel Minett

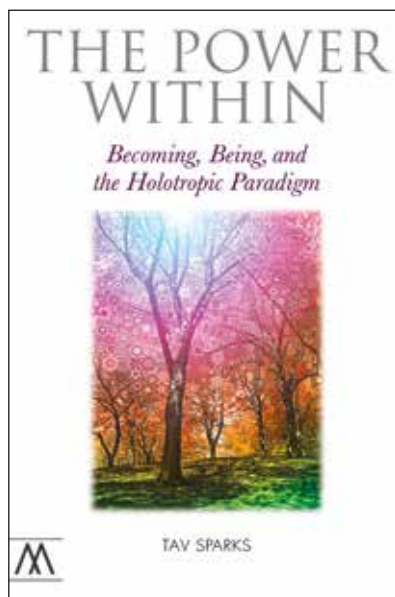
THE POWER WITHIN - BECOMING, BEING, AND THE HOLOTROPIC PARADIGM

Tav Sparks

Muswell Hill Press, London,
2016, 374 pp., £21.20, p/b -
ISBN 978-1-90899-520-9

The 'power within' referred to in the title of this book is a phenomenon triggered by a breathing technique known as Holotropic Breathwork. The word Holotropic comes from the Greek word *hólos*, meaning whole, and tropic, meaning turning or changing, i.e. moving toward wholeness. The basic idea of this technique is that, with the aid of carefully selected music and breathing in the company of a helper (the common name for the trained breathwork practitioner), a person will get in touch with their inner healer. This refers to a natural tendency we all have to be able to self-adjust and heal psychological wounds. Sparks writes: "*Here is the holotropic perspective: Under the infallible guidance of our inner healing capacity, we are able, through powerful methods, to heal our personally circumscribed state of consciousness, what we call the individual self.*" (p110)

As an overview of Holotropic Breathwork this book does a good job. From a rather mystical standpoint, it explains both how the technique works and also how it ties in with the more spiritual approach to the human psyche represented by Eastern traditions. The book gives an account of how Stanislav Grof, the originator, came to develop the technique from his pioneering work using LSD in



psychotherapy. Grof would take his clients through LSD sessions and as a result of this he came to realise the transpersonal aspects of this kind of therapy. The result of his research is a cartography of the psyche based on what Grof named a COEX system of pre- and perinatal related matrices.

When the use of LSD later became restricted, Grof continued his work by developing a breathing technique that mimicked the observations he had made in the LSD sessions. His conclusion was that it was possible to recreate the same kind of psycho-therapeutical settings that lay behind the transpersonal experiences in LSD-induced therapy. The author, Tav Sparks, who has worked very closely with Grof for many years, refers back to Grof's theories and work throughout the book. Consequently, the book is also a history of the development of Holotropic Breathwork.

The downside of the book is that it takes a rather polemic approach to other types of psychiatry and psychotherapy, which Sparks regards as too one-dimensional: he writes, for example; *"For the last century and more, modern psychiatric approaches espouse the strategy, either unconsciously or consciously, of practitioners and researchers to assign a diagnosis of pathology, or wrongness, to a substantial portion of human thought processes or behaviours existing 'outside the norm,' or even some of those considered inherently socially unacceptable."* (p. 48)

Although much can be criticised in an over-diagnosing pathology approach, what he is describing may be more of an American phenomenon than a global approach to dealing with psychological problems. Health care in America is based on insurance. Hence there has always been a need to label psychological problems in a similar way to illnesses. No label, no insurance cover! In the rest of the world, in particular where health care is covered by taxes, the situation is different. Here much has changed, especially in recent decades. In particular psychotherapy, based on Evolutionary Psychology takes a much more open-minded approach to psychological problems based on a wellness-oriented approach.

But as we all know health care is an area that is stretched to its limits in many parts of the world. And treating psychological problems is usually not a quick fix. It may take years of psychotherapy to help a person regain their inner balance. This is often too costly to be covered by national health programmes. So given that patients with physical problems often only get around 10 minutes of a doctor's time, drug treatments are often the only alternatives for both physical and psychological problems.

The concept of an 'inner healer', presented in the book, is in itself a very interesting concept that deserves thorough investigation and research. Properly understood, it may entail a complete turn-around as to how modern medicine works. This is why it is so important for alternative therapies to be accepted as proper alternatives by the national health providers. But as always, when it comes to activities funded by tax payers (or insurance companies), the demand for evidence is essential. This is something that alternative therapies have to accept. But with health care providers struggling to meet the needs around the world, the finding of alternatives needs urgent attention.

Unfortunately, this book does not offer many explanations that would satisfy mainstream health care. The claim that transpersonal therapies, such as Holotropic Breathwork, help to evoke 'the inner healer' needs considerable substantiation. This is not always easy to do within conventional Western science,

which is still very attached to trials with blind and double-blind testing, etc. But there are ways of dealing with this problem. For instance, there are theories of consciousness* and the human psyche** that can be transferred to the transpersonal techniques and therefore offer explanations.

Testing exactly which element/s in a breathwork session are the best triggers of the 'inner healer' would also help. This can be done simply by changing the various parameters for the breathing session. Another very simple solution would be to provide definitions of words such as 'consciousness' and 'healing', for example in the following statements from Sparks: *"consciousness itself is the healing power"*. (p. 274) These are very ambiguous words, capable of an enormous variety of interpretations which have provoked extensive fields of debate and research. Additionally, providing some form of statistics as to the success rate of Holotropic Breathwork would be useful in bringing the technique into mainstream therapy.

One fairly well recognised and accepted aspect of the human psyche is the need we all share to be part of a bigger group. To be seen and heard by others is one of our most basic needs (in many ways as important as nourishment for our survival). Perhaps it's simply the full attention of another person in Holotropic Breathwork that makes us feel in touch with our inner healer. Establishing this would be a big step forward. Not to mention that it may also help to fine-tune and improve the Holotropic technique as such.

Sparks states that: *"It seems to be challenging for many of us people-helpers to accept the psycho-spiritual truth that clients know better than we do about what is good for them."* (p. 140). This statement needs further explanation in order not to come across as very one-sided. Sparks draws parallels with the 12-step program regarding the role of the breathwork helper. However, 12-steppers clearly profile themselves as operating within a peer-to-peer self-help group. Holotropic Breathwork, does not have such a clear peer-help profile. On the contrary, Sparks describes it as a form of psychotherapy. So people who consult a breathwork practitioner are probably looking

for a professional therapist. And anyone offering some form of therapy, needs to take responsibility for being seen as a therapist or authority figure even if this is against their principles.

In addition, if people always knew what was best for them, as Sparks claim, the world would not look the way it does. It may ultimately be true that (at some level) nobody does anything if they don't believe it's good for them. But, also at that level, one has to accept that everything, including the most destructive behaviours, can be seen as 'being good for them' even when the 'logic' is completely twisted for whatever unfortunate reasons. (Ignoring this opens the door to the whole 'good/evil, original sin' worldview.) Recognising this makes this kind of argument meaningless, unless it is fully explained (which this book does not). So here too, a middle way with a more balanced approach would have been beneficial.

From personal experience I also question claims such as: "*Healing seems to occur through an inherent 'cooperation' between the inner healing source and consciousness itself*". (p. 37) In my view it is not always enough to create an environment where a person opens up to their inner resources. Nor is it always enough to "*consciously relive*" past experiences. It may be sufficient, of course, in individual cases. But then again, these kind of experiences can occur spontaneously without any specific setting or assistance. In order for 'healing' to take place, I would argue, a person needs to be helped to an adequate understanding of their trauma in order for 'healing' to take place. (Understanding in this context includes both mental and emotional understanding).

Additionally, Sparks stresses throughout the book that this kind of healing support can't be taught. However, a proper understanding of the human psyche *can* be taught. Unfortunately, Sparks uses his position mainly to criticise other forms of psychotherapy. But psychotherapy is not always about telling the client what they need or labelling them, as Sparks claims. Many modern techniques are based on providing an overall understanding of the human psyche, for their clients, in order to help them understand why they may be having psychological

problems. This kind of knowledge can often be another way of acquiring the kind of 'inner power' that Sparks talks about.

This is an important distinction to make. It is important because it means that the assistant, 'helper' or breathwork practitioner needs to have sufficient knowledge and experience of psychotherapy to be able to help the client to such increased understanding. Sparks' book relies mainly on a spiritual solution: "*However, it is imperative that support people in a holotropic milieu must also commit to systematic daily psycho-spiritual work.*" (p. 127). Although I can agree with the principle in itself, but not without clearer definitions as to what progress in the "*daily psycho-spiritual work*" involves. In any system of criteria designed to qualify people as 'helpers' it will always be difficult to safeguard against malpractice.

This is a problem of introspection versus inter-subjectivity and it needs to be solved if techniques such as Holotropic Breathwork are to be available as a valuable contribution to mainstream therapies. If not the risk of it becoming guru-teaching is simply too high.

In particular, in transpersonal techniques such as breathwork (of various kinds) there are too many examples of practitioners who have not understood the concept "*systematic daily psycho-spiritual work*". Instead they rely too much on their technique and do not realise that they lack sufficient knowledge of 'general psychotherapy' to be able to offer enough support. This is an important point for all breathwork techniques which practitioners need to take seriously. You could say that the power of their techniques needs to be taken more seriously and treated with the utmost respect. In particular, if they want to promote a paradigm shift, as Sparks describes.

Having said this, the book is suitable for anyone interested in a new approach to psychotherapy. Hopefully there will soon be a follow up of this book that will offer a deeper understanding of what exactly the technique constitutes, and in what way this requires a 'Holotropic Paradigm Shift', as the author claims.

* See for instance Varela & Hayward, 2001: *Gentle Bridges: Conversations with the Dalai Lama on the Sciences of Mind*, and Whitehead, 1978 : *Process and Reality*,

** See for instance Sue Gebhart, 2014, *Why Love Matters*, and Nessa Carely, 2012, *The Epigenetics Revolution*

RECONCILING NEUROSCIENCE AND TALKING THERAPY?

Steve Minett, PhD

■ WHY THERAPY WORKS: USING OUR MINDS TO CHANGE OUR BRAINS

Louis Cozolino

W. W. Norton & Company, 2016, 288 pp., £15.99, h/b - ISBN 978-0-39370-90-56

I found this a very rich and engaging book, filled with the creative tensions generated by at least two fault lines which run through it: at a practical level the objective of the book is somewhat ambivalent. At one level, it can be read simply as a manual for practitioners of psychotherapy, especially of the 'talk' variety. On the other hand, the statement in its title, 'Why therapy works', certainly implies an ambition to grapple with the scientific and philosophical problems of consciousness studies (which is my particular area of interest), such as whether our behaviour is totally determined by our genes, our environment (especially in early infancy) plus an element of chance, or whether there's scope for us to exercise some element of free choice. (The amount of space Cozolino devotes to the novel therapeutic technique known as Eye Movement Desensitisation and Reprogramming, despite conceding that he has no idea how it works, definitely weighs on the practitioner manual side.)

The second fault line is more concerned with theoretical perspectives. It seems to me that, in this book, Cozolino is trying to reconcile two distinct, long-standing and antagonistic traditions in human psychology; firstly, the psychodynamic tradition (starting with Freud) which empathises the overwhelming impact which infantile trauma has on the course

and quality of adult life. Secondly, the cognitive, neuroscience tradition (which grew out of behaviourism). This seeks to account for the human brain and behaviour from a rigorously positivist, 'hard' science perspective. (On the issue of infantile trauma, the book does a very good job of re-educating us regarding Post Traumatic Stress Disorder: we customarily think of this as only affecting adults who've been exposed to combat, accident or disaster scenarios. Cozolino, however, asserts that abuse and neglect in infancy can have just as devastating an impact.)

To start with this second, and perhaps more productive fault line, Cozolino has long promoted an understanding and integration of modern neuroscience with psychotherapy. An example in this book is his explanation of neurosis via 'an unfortunate twist of evolutionary fate'; namely, the fact that, "the amygdala is mature at birth while the systems that regulate and inhibit it take many years to develop and mature. Thus, we enter the world totally vulnerable to overwhelming fear with no ability to protect ourselves." [p. 192] (He suggests that an effective therapist needs to become 'an amygdala whisperer'.) Following this reference to the well-established neuroscience finding that the amygdala is the organ of instant fear, warning and alarm, however, he goes on to resolve this evolutionary dilemma via a thoroughly psychodynamic solution; namely that, "... we are capable of attuning with caretakers who can regulate our fear circuitry until our own brains are ready to take on the job." [p. 192]

I'm personally convinced that Cozolino's explanation is the correct solution to the dilemma. (Neurosis arising, of course, where the quality of attunement is inadequate.) I also, however, think that; a) this 'attunement' solution would not be widely accepted in the cognitive neuroscience community and b) Cozolino does not do any of the theoretical 'heavy-lifting' necessary to justify it. While Cozolino devotes a lot of effective time to explaining individuals' denial and resistance to the impact of infantile trauma on their personal lives, he doesn't refer to the paradigm-based, cultural and institutional denial and resistance to this phenomenon. (See below for further explanation.)

A second example of the contradictions raised by Cozolino's appeal to would-be 'hard science' explanations is his division of people into 'alphas' and 'betas' (essentially, 'natural' leaders and followers). This is, I assume, taken from evolutionary psychology and, again, I can agree with a lot of it, especially when Cozolino introduces a nuanced four category version; 1) naturally confident and competent leaders who enjoy being the centre of attention (charismatic is probably the right term) 2) naturally passive and content followers who are happy to abide by the rules and avoid the burdens of responsibility (I'm most dubious about this category) 3) 'Pseudo-alphas' who believe that they have all the qualities necessary for leadership but really don't (Trump would be a classic example) 4) Aspiring Alphas who find themselves trapped in beta social roles but feel frustrated and under-valued.

As Cozolino very correctly points out, the people who voluntarily enter psychotherapy are almost exclusively Aspiring Alphas. (Pseudo-alphas sometimes are ordered into therapy because of the problems they cause for other people.) However, having set out the alpha/beta categories as 'natural' (and possibly, thereby, opening himself to accusations of American cultural bias), Cozolino then proceeds to a chapter entitled, "Helping clients become alphas": many an evolutionary psychologist might well argue that converting aspiring betas into alphas via the therapeutic process amounts to subverting the 'natural order' of society. Again, this strikes me as another example of Cozolino having his hard science cake while eating his humanist therapeutic role.

I find these paradoxes fascinating because I agree whole-heartedly with the interpretations of the human mind-brain and behaviour which Cozolino articulates so clearly: he goes so far in the right direction, but without any safety net of theoretical justification. But what would such a 'safety net' consist of? It would, in my view, have to entail tackling head-on the nature and function of consciousness. At one point Cozolino (veering to the side of practitioner-manual) avers that consciousness is, "too big a question for me". However, if your ambition is to explain why talking therapy works, you have to assume

that certain conscious states of mind, as induced by therapeutic dialogue, have the causal power not only to heal the mind, but also (as Cozolino explicitly claims) to restructure the brain. (He has a chapter on 'The Power of Coherent Narratives'.)

Explaining the causal efficacy of consciousness is of course a vast and controversial topic, but I hope I can conclude by saying a couple of things that can point us in the right direction: many philosophers reduce the problem of consciousness to the two component issues of 'qualia' and the self: qualia can be summed up in what's become known as the 'hard problem'; "why should anything *feel* like something?" In relation to Cozolino, let's apply this question to the emotions. Why should the observable and measurable neurophysiological processes that generate human emotions, also produce 'affect', the subjective experience of emotion? For many decades the very existence of affect was flatly denied by the scientific and philosophical communities and still is by some prominent representatives, such as Daniel Dennett, who states that; "we seem to have qualia, but really we don't!"

As to the self, the work of Jaak Panksepp opens up some highly 'therapy-friendly' perspectives. Panksepp argues that affect and the self are natural outgrowths of the physiological process of homeostasis. They exist in order to regulate the neurophysiological emotions, which for infants can manifest themselves in catastrophic forms. The self and its affects are the interlocutor to whom the good parent (and the psychotherapist) is whispering. (The amygdala is, after all, only a biological organ!) Greenspan and Shanker argue that this affect nurturing of infants by caregivers has a crucial and evolutionarily significant role for the human species. I could also mention Sarah Hrdy and many others. My point is that the theoretical structure for Cozolino's safety net has now become available. If his book is, in fact, just a handbook for practitioners, it's probably too big an ask for him to have incorporated it. That book remains to be written.

Steve Minett teaches Theories of Consciousness and runs the website <http://www.consciousnesstheories-minett.com>

ANNOUNCING A PARADIGM SHIFT

Larry Culliford

■ CULTURAL PERSPECTIVES ON MENTAL WELLBEING: SPIRITUAL INTERPRETATIONS OF SYMPTOMS IN MEDICAL PRACTICE

Dr Natalie Tobert (SMN)

Foreword by Dr Michael Cornwall

Jessica Kingsley Publishers, 2017
264 pp., £19.99, p/b - ISBN

Hosting a 'Spirituality and Psychiatry' special interest group (SIG) since 1998, to which over 3,000 of its Members have signed up, the Royal College of Psychiatrists can be said to support the basic theme of this book, that society is, 'On the verge of a major shift in how health and especially mental health is understood and treated'. This shift involves, 'Abandoning a reductionist disease based paradigm and embracing a holistic, open ended, even mystery-filled vision of humankind.' (p. 8) To some this remains hard to accept, but read on!

Natalie Tobert is a London-based medical anthropologist who has researched the topic thoroughly, writing both clearly and persuasively, recalling previous examples of major revisions of attitude; towards unmarried mothers and consenting homosexuals, for example. Indigenous people are no longer automatically considered mentally challenged with consequent dismissal of the riches of their Native religious traditions. She writes, 'This new book... is extremely wide-ranging, presenting human experience from life through health, to death and beyond. In presenting material from the spiritual perspective, I am not writing from a particular religious or academic viewpoint... My aim is to acknowledge the dilemma of different frameworks of knowledge and bridge the gap between the perspectives of physicians and those of patients.' (p. 17)

She explains, 'Acknowledging cultural frameworks for the world and human existence is relevant to health and recovery. This is because coherence of understanding between practitioner and client tends to improve healing.' (p. 26) Further, 'People's beliefs about their spiritual existence influence their explanatory models and interpretations of their mental health symptoms; they also affect their access to healthcare and compliance with treatment.' (p. 32)

In seventeen neat chapters, each helpfully introduced and then summarised for clarity, the author tackles pertinent subjects including 'cultural beliefs about health and illness', 'beliefs about conception and human identity', 'women's bodies and human behaviour', 'cultural knowledge on death and dying' (and about survival after death), then five chapters on 'anomalous experiences', among them 'religious and spiritual experiences', 'near-death experiences', and 'spiritual awakening'. The final chapters in turn cover, 'Why address cultural understandings and academic fixity?', 'Acknowledging dissonance as a way forward', and, 'Towards positive change'.

This is a worthwhile book, making an ideal companion to two Royal College publications: 'Spirituality and Psychiatry' (Cook et al, 2009) and 'Spirituality and Narrative in Psychiatric Practice' (Cook et al, 2016). Members of the Spirituality and Psychiatry SIG will certainly find it rewarding, others might find it surprisingly beneficial, both accessible and enlightening, too.

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THE CAUSE OF MENTAL SICKNESS

John Kapp

■ YOUR RESONANT SELF - GUIDED MEDITATIONS AND EXERCISES TO ENGAGE YOUR BRAIN'S CAPACITY FOR HEALING

Sarah Peyton

W.W. Norton, New York, 2017,
339 pp., £24.95, h/b –
ISBN 978-0-395-71224-7

The Cause of Mental Sickness is a savage Default Mode Network (not chemical imbalances.

Eureka at last. Sarah Peyton is a healer who has studied neuroscience, and shows that the cause of mental sickness is

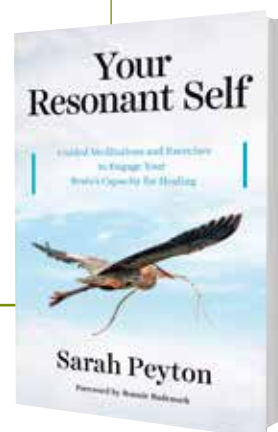
a savage *Default Mode Network* (DMN) and that healing needs meditation, (not medication), by cultivating our *Resonant Self Witness* (RSW). The way we behave depends on how our brain is wired, not on chemical imbalances, unless we have put them there by taking drugs.

Summarising the key findings of this seminal book, we can choose to use our minds in many different modes, (such as talking, listening, acting, moving, watching, sleeping) These are networks of neural connections between different lobes of our brain, by which we can bring sensory input and memories onto different screens of our mind, like a manual telephone exchange. The Default Mode Network (DMN) is the default state when we stop *doing* something, and are just *being*, which is the altered state of meditation. We can then hear our inner critic, (amygdala) which is like a smoke detector. If we are mentally healthy, our DMN is calm, but if we are mentally sick our DMN is savage with intrusive thoughts and hostile voices, which may trigger 'fire' when there is none, activating inappropriate behaviour.

We quieten our chattering DMN by switching to another mode, and doing something (like video games) or by using drugs, (street or prescription) which numb the painful feelings from our hostile thoughts. However, when we stop doing or using, our DMN intrudes again, which is why we may find it difficult to meditate. The DMN concept explains compulsive and obsessive behaviour, and why we may do to excess, as workaholics, or fitness freaks. Animals have no neocortex, so always have a calm, watchful DMN, so seem to meditate all the time, setting a good example of a calm nervous system. Our DMN is partly inherited (nature) but it is also nurture, (conditioning)

Luckily, thanks to neuroplasticity, we are not stuck with how we are now, as we can develop our *Resonant Self Witness* (RSW) with Sarah's meditations to calm down our DMN and rewire our brains. Sarah says the RSW is 'the parts of the brain which that are capable of self warmth and self regulation.....and is the experience of feeling supported and held. In the brain this shows up as an easy, self-supportive dialogue between the Pre

Frontal Cortex (PFC) and the amygdala/limbic system, which has the effect of shifting the savage and traumatised DMN, the automatic voice of self-hate, and self-recrimination into self-accompaniment of a kind, resonant



DMN, thereby increasing our capacity for attuning and resonating with another human being with curiosity, self-warmth and self regulation. It is in the PFC where emotion is noticed and named, and where we can hold attention to bring attunement to self and other.' (p. 44) Although Sarah wisely does not use these words, the RSW is what mystics call our 'soul' or 'heart', and what I call the 'operator' in the computer system metaphor, in which the body is the hardware, and the mind is the software, (see paper 9.91 of www.reginaldkapp.org)

PROOF THAT HEALING WORKS

Ann Procter

HEALING IN A HOSPITAL

Sandy Edwards

Amazon Fulfilment, 2017,
321 pp., £11 (Kindle £6), p/b -
ISBN 978-0-9575169-0-8

This book is a fascinating story of how a research project proved that spiritual healing helped people improve their wellbeing. Some ten years of effort was put in by Sandy Edwards, who trained as a spiritual healer with the Healing Trust (erstwhile National Federation of Spiritual Healers, a non-religious charity) after being healed of psoriasis herself. She set up a voluntary healing centre which provided ample examples of improvements in wellbeing, some of which she describes.

Then she had an opportunity to offer healing, free of charge, to patients of consultant gastroenterologist Dr Singh at the Good Hope Hospital in Birmingham. He welcomed her to his Wednesday morning outpatient clinic and introduced the offer to patients he felt he could not help sufficiently with conventional medicine, and many accepted a 20-minute treatment straight away in an adjoining room. All had been passed on by their G.P., many with a long history of suffering. Presently she sought the doctor's permission to conduct an audit of results, and these showed considerable improvements in 267 patients. Much encouraged, Sandy and Dr Singh investigated conducting a full scale research.

They applied for a Lottery grant, a mammoth task in itself, requiring investigation of other relevant research results and the design of a complex research protocol, all of which she describes meticulously. The subject under scrutiny was whether healing therapy, as an adjunct to conventional medicine, was beneficial to patients with irritable

bowel syndrome or inflammatory bowel disease. A Steering Group was set up, including members from the University of Birmingham and others. Eventually the questionnaires were set and the programme was under way, involving 200 patients. The book describes how it was conducted, and the results are set out in considerable detail. Statistical details are not my scene, but they come across convincingly positive and they impressed assessors. No adverse effects were reported.

Sandy recommends that spiritual healing becomes available within the N.H.S., for the benefit of staff as well as patients. She remarks that it must be the cheapest of all the complementary therapies as it requires no specialist equipment and no designated space!

The script is thorough and precise, with factual resources and references throughout, including some dispelling the myth that healing is only placebo. It includes masses of patient comments, including from doctors and nurses who have received healing themselves. Enjoy !

Ann Procter is a psychotherapist and spiritual healer, invited into the Network by George Blaker in the 1970s to help broaden discussions among scientific and medical members. Currently most of her work involves healing homes together with her husband Roy. See www.procterdowsing.co.uk

PHILOSOPHY- SPIRITUALITY

TOWARDS A SPIRITUALLY INFORMED SCIENCE

David Lorimer

SECULAR SPIRITUALITY

Harald Walach

Springer, 2015, 216 pp., €90, h/b - ISBN 978-3-319-09344-4

In this brilliant and searching study, Harald Walach argues that the Enlightenment is as yet incomplete, having thrown out the baby of spirituality along with the bathwater of dogmatic Christianity ('science freed itself and the intellectual minds not from spirituality and its essence, but the doctrinal building'). He brings together the two senses of enlightenment, East and West, contending that science now has to incorporate spirituality in order to attain a deeper sense of enlightenment as true knowledge. He distinguishes between spirituality representing the experiential

core of religion from its outer doctrinal-dogmatic clothing. In the introduction, he characteristically and frankly describes his own presuppositions, of which the most significant are that spiritual experience is always one of reality and that consciousness is more than neurons firing in the brain - these go against mainstream thinking, even if there are good reasons for supposing them to be true. The next chapter continues this expository process with further clarifications and presuppositions relating to key terms like experience, spirituality ('related to a reality that transcends the ego and its goals') reflecting a deeper sense of connectedness, spiritual experience ('a direct, unmediated experience of an absolute reality that is beyond the experiencing self'), religious experience, religion, religiosity, faith, doctrine/dogma, God and spiritual practice.

Harald follows the radical empiricism of William James in asserting the primacy of experience and the basis of religion in the experience of its founders and saints. In the Catholic tradition, this was embodied in mystical theology (see my review of David Torkington's book below) with its emphasis on the primacy of experience. However, the Church has always been suspicious of its mystics - Meister Eckhart is a prime example - and the spirit is converted into the letter, an emphasis on the water shifts to the container and, as Harald observes, the training of clerics focuses primarily on 'doctrine, faith, cognitive skills in teaching, but not experience and individual spirituality'. (p. 25) This expresses the classic tension between spirit and letter, prophet and priest, experience and formulation/proposition, right and left hemisphere. In this sense it is true to say that dogmas are 'doctrinal condensations of experience and metaphors' and should not be mistaken for propositional descriptions of reality (p. 33). It is here that spiritual practice is pivotal in denoting 'all intentional human acts which were used to show, document, practice, or renew our connectedness to a reality that transcends us.' (p. 34) The basis of such practices 'is to achieve experiential access to that realm of absolute reality which is the goal and core of spiritual experience.' Although he does not mention the word, this is a good description of gnosis, or direct insight, beyond pistis - as was also embodied in and expressed by CG Jung and representing an intuitive way of knowing beyond the senses and reason.

The next historical chapter gives the reader a new understanding of the mediaeval concept of experience and the emergence of a new spirit of enquiry in universities. Harald describes how Roger Bacon formulated 'an experiential

way of knowledge' consisting of the three elements of a) outer or sense experience, b) formal mathematical analysis of this experience and c) inner experience – this corresponds to the three eyes of Bonaventure, namely the eye of sense, the eye of reason and the eye of contemplation. Bacon further explains how this inner or experiential science has seven levels. Harald sees this as the forerunner of a future all-encompassing science in which inner and outer experience were one and where 'scientific and spiritual experience were two sides of the one process of understanding and knowing, called experience.' He then moves onto a thinker new to me and I imagine to readers of this review - Hugh of Balma, with his experiential knowledge of God through the *sensus interior* and leading to an expression of all-encompassing love. The important point is that spiritual experience was and is a valid epistemological option. Harald develops this theme further in his discussion of Aquinas and Eckhart, showing how this holistic view of experience also emerges in William James and Franz Brentano as opposed to Wilhelm Wundt, who considered non-ordinary states of consciousness beyond the pale.

Harald advocates - and I agree with him - an extended notion of rationality to include spiritual experience - this was and is a central concern of the Network, bringing together intuitive insight with rational analysis and arguing for the epistemological and ontological reality of the inner. This brings up the question of epistemological authority. Ironically, in freeing itself from 'doctrinal bondage and dogmatic slavery' under the churches, the Enlightenment moved towards its own dogmatic formulation as positivism and scientism. This latter term was apparently coined by William James and Edmund Husserl and represents the conversion of science as a method into a belief system. In the process, 'science is assuming the very authority that it has taken away from religion over the centuries' (p. 63) and becomes intolerant of heresy in its turn, as Harald himself has experienced in his researches on parapsychology and homeopathy. This raises questions of politics and power in suppressing, denigrating or ignoring evidence inconsistent with scientific materialism. Logically, however, (p. 64) as Collingwood and others have pointed out, science is also subject to Godelian incompleteness because 'the final foundations science is resting on cannot be provided within the framework of the system itself' - it necessarily rests on fundamental metaphysical presuppositions.

This brings Harald on to a discussion of the reality of consciousness and the

epistemological status of inner experience with a reminder that the Nietzschean death of God is in fact the death of a doctrinal entity rather than a realm of experience. He explores idealism, materialism and dualism before explaining his own view in terms of complementarity entailing an ontological monism allowing for phenomenological dualism in terms of our experience of one underlying reality - here a reference to the work of David Bohm on implicate and explicate orders would have been relevant. This leads on to his epistemology of inner experience, drawing on Brentano and proposing that 'inner experience, the experience of consciousness, will also be an access route to reality in its totality and this inner mode of knowledge from inside' (p. 88), including direct knowledge of God as the totality of being - however, one should not forget at this point that our 'outer' experience is also mediated by consciousness. Epistemologically, the referent of this inner, spiritual experience is the structure of the world from within. This can be illustrated from the phenomenology of the NDE with its various stages, although such structures and constructs are also culturally conditioned.

The next chapter explains in more detail examples of secular, non-dogmatic spirituality potentially leading to a more complete and humane science. Harald provides a useful diagram of conscious states with two axes: on the vertical conscious/unconscious and on the horizontal collection/fragmentation. In our distracted age, we are becoming all too familiar with fragmentation and dispersion, which is perhaps one reason for the recent popularity of meditation and mindfulness as forms of collection. This leads on to an extensive and well-informed section on the neurobiology and physiology of concentration and relaxation and a discussion of the psychology of meditation and spiritual practice, eventually bringing him back to Roger Bacon and his contention that spiritual practice leads to more certainty about spiritual realities and the development of 'a science of experience in the broadest sense' (p. 145). Such practices can and do lead to experiences of unity, joy, freedom, love and light as practitioners experience deeper levels of reality and act from these, as we know from research work on the transformative power of NDEs and spiritual experiences, as also found in the work of Sir Alister Hardy.

In the final part of the book, Harald identifies some ideological dangers, observing that spirituality can have a corrective function in reminding us 'that our opinion or model of reality is not reality itself' (p. 180). Narcissism is also a danger in view of the task of spirituality in

transcending the ego. More generally, we face a crisis of meaning and the threat of narrow fundamentalisms, not excluding scientific fundamentalism. Rather - and I agree here - we should consider the primacy of interconnectedness and a holistic view arising out of an experience of unity and interconnectedness on the basis of a culture of consciousness and spiritual experience. Scientifically, we are still hampered and limited by our materialistic understanding of consciousness and reality, based as this is on the primacy of the outer over the inner, of matter over mind. However, the inner experience of consciousness is our immediate reality and inner structures such as relationships, purpose, meaning and values are central to our well-being. Working towards a spiritually informed science is an eminently worthwhile and significant project to which the Network is devoted, and this book makes a hugely valuable contribution to articulating the necessary steps in order to achieve this - these will also involve the development of our education system in educating the inner person and introducing practices of silence (this has already started). Then we can hope for a fuller realisation of enlightenment.

LEARNING FROM HISTORY

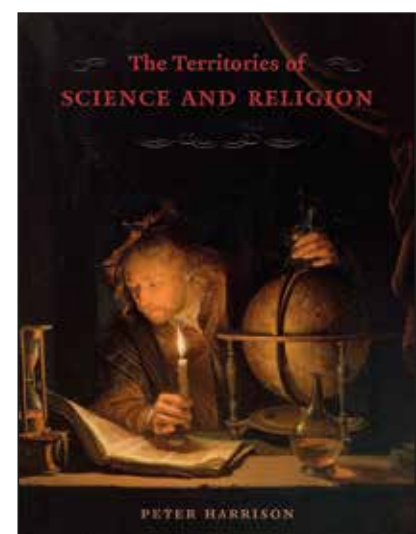
Ernest Lucas

THE TERRITORIES OF SCIENCE AND RELIGION

Peter Harrison

University of Chicago Press, 2015, xiii + 300 pp., £21.00, h/b - ISBN 978-0-226-18448-7

Administrators in the university in the USA in which I worked in the early 1970's would often 'correct' what seemed to them an obvious typo in documents I sent



them which said that I had a BA degree in Chemistry from Oxford University. They were mystified by my explanation that when chemistry began to be taught in Oxford in the nineteenth century it was part of natural philosophy and so *of course* it merited an arts degree. A few years later I obtained another BA from Oxford – in theology. This Oxonian anachronism is pertinent to the main thrust of this book by the Professor of the History of Science and Director of the Centre for the History of European Discourses at the University of Queensland. He argues that if we rigidly apply our modern categories of ‘religion’ and ‘science’ to the past we inevitably arrive at a distorted picture of their historical relationship. His book is a fresh undermining of the still-popular ‘conflict myth’ view of the relationship between science and religion which traces the rise of the modern use of these categories. It is a fascinating and somewhat complex story which is lucidly told. A review can touch on only a few points.

In the Middle Ages, as evidenced by Aquinas, *religio* was a human virtue or habit, concerned with inner acts of devotion and prayer, not a set of beliefs and practices. *Scientia* referred to a habit of mind or intellectual virtue which could be developed by practice, not a body of systematic knowledge about the world. What historians of science usually see as the closest medieval analogue to modern science, ‘natural philosophy’, included topics such as God and the soul and excluded mathematics and natural history. As an integral part of philosophy it was also concerned with pursuing a ‘good’ life. It therefore always had moral and religious ends in mind. Christian critique of pagan philosophy is often seen as evidence of a bias against ‘science’. In fact, much of it was directed at astrology, divination, the worship of deified heroes, and belief in the divinity of the celestial bodies – at what is now seen as ‘superstition’. As medieval Christianity emptied the universe of divine beings it replaced them by divine meanings. Every creature was seen as designed to manifest some divine truth. Nature, like the Bible, was ‘God’s book’. Through the use of allegorical interpretation, a method already applied to Scripture, they gave intimations of the Trinity, bore witness to Christ’s work of redemption and were the source of specific moral lessons.

Reservations about the abuses of the allegorical method were voiced before the Reformation. Both Luther and Calvin rejected its application to Scripture, prioritising instead the ‘historical’ or ‘literal’ meaning of the text. This affected its wider use. Francis Bacon proposed a new non-allegorical way of reading the ‘book of nature’. In his view it manifested

the ‘power and skill’ of its Creator but not his ‘image’. He replaced allegorical ‘deduction’ with the ‘inductive’ approach of observation and experiment. Following Bacon, natural philosophy still had religious significance but by the eighteenth century it simply provided a limited amount of evidence from which some basic truths about God could be inferred, as by Newton in his *Principia*. Natural Philosophy also continued to be concerned with pursuit of a ‘good’ life, but the ‘good’ concerned came to be seen as not so much the ‘good of the soul’, as the material betterment of humankind.

Another significant result of the Reformation was the Peace of Augsburg (1555), a settlement between the Catholic Holy Roman Emperor Charles V and an alliance of Lutheran princes. It specified two ‘religions’ based on the idea that religious differences could be given objective expression, as in the twenty-eight articles of the Augsburg Confession. By the second half of the seventeenth century a number of influential English Protestant thinkers, for example Stillingfleet and Locke, presented faith and belief in terms of giving assent to propositions.

In the first half of the nineteenth century there was still a fundamental conviction that there was a unity of theological and physical truth. In this ‘natural theology’ played an integrating role, as seen in the Bridgewater Treatises (1833-36). However, seen as an ‘inductive science’ the idea of ‘natural theology’ reinforced the understanding and definition of ‘religion’ in terms of belief in propositions. It was the second half of the nineteenth century that saw the reconstruction of ‘science’ around the principle of a common method for studying the physical world to gain knowledge about it and a common identity of its practitioners, the emerging professional ‘scientists’. This drawing of boundaries around ‘science’ and ‘religion’ with a focus on each as bodies of knowledge expressed in propositions raised the question of the relationship between them in a new way. This was the period which produced the ‘conflict myth’ as some scientists set out to validate their particular view of reality and reinforce the boundaries of science to establish its independence and authority. This myth was linked with another one, the myth of ‘historical progress’ which took various forms in the late nineteenth century – such as J. G. Frazer’s scheme in which humanity progresses from magic, through religion, to science. Reading history through the lenses of these myths distorts it.

Harrison provides a wealth of interesting material to support his understanding of the development of the understanding of ‘religion’ and ‘science’ and their

relationship from antiquity to today. No doubt other historians will assess it and challenge him at some points. However, his overall thesis seems sound: that our current understandings of these categories are relatively recent constructs and it is unhelpful to project them into the past as is commonly done. This is not a matter of purely historical interest. As he indicates in his closing sentences, there are implications for today. He suggests that advocates of a constructive dialogue between science and religion may unwittingly perpetuate conflict because, ‘Often they concede the cultural authority of the sciences, the propositional nature of religion, and the idea of a neutral, rational space in which dialogue can take place. As we have seen, each of these developments is relatively recent. But the history of their emergence, along with the past from which they came, offers some intriguing intimations of how things might have been, and might yet be, rather different’ (198). There is a lot to think about there!

The Revd Dr Ernest Lucas is Vice-Principal Emeritus of Bristol Baptist College, where he taught Biblical Studies, and prior to training for Baptist ministry he did biochemical research. This review was first published in Science and Christian Belief and is reprinted with permission.

FRACTAL CONSCIOUSNESS

David Lorimer

■ BELONGING TO GOD

William Keepin PhD

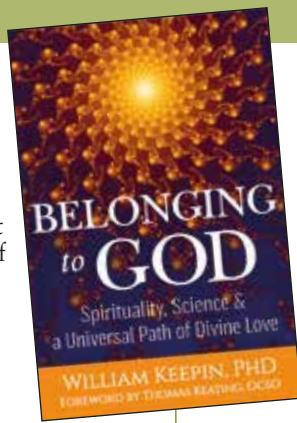
Skylight Paths, 2016, 246 pp., \$19.99, p/b.

Subtitled ‘spirituality, science and the universal path of divine love’ and with a foreword by Fr Thomas Keating, this book breaks new ground in bringing together the mystical core of devotional paths across Hinduism, Christianity and Islam. The six chapters, each in relation to divine love, cover Scriptures, mystics, practice, science, fire and principles. The book is grounded in inter-spirituality and endorsed by Ravi Ravindra with its deeper exploration of the spiritual transformative journey, which is the primary purpose of religion – hence the term interspiritual rather than interreligious dialogue. The author explains his own background as a mathematical physicist, psychologist, environmental scientist and social activist, but his core is his mystical practice of meditation and prayer over the last 35 years. Thomas Keating has been convening the Snowmass Interreligious Conference for nearly as long as our Mystics and Scientists, and the group has formulated eight points of agreement which I think most readers of this journal would agree

with, including the last, that disciplined practice is essential to the spiritual life; yet spiritual attainment is not the result of one's own efforts, but of the experience of oneness with Ultimate Reality.

Towards the end of the introduction, the author warns of the danger of becoming preoccupied with theology and philosophy and missing the most essential: "intensive practice that leads to direct, humble connection to the living Spirit." Indeed, this involves "relinquishing the mind's insistent demand that everything must be understood on its terms, in cogent concepts and tidy logical frameworks." He quotes a Sufi saying that to understand the inability to understand is true understanding (!). He further develops this line of thinking in his chapter on science and in an appendix on science and mysticism, where he observes that science is fundamentally a discipline of the human mind, grounded in empirical observations of the physical universe. This carries its own inherent limitations, but 'advanced scientific insight is not equivalent to advanced mystical realisation' as the two kinds of knowing are correspondingly rooted in the relative truth of the mind and in absolute truth beyond the mind. David Bohm realised this, and is quoted as saying that thought creates structures, and then pretends they exist independently of thought. An important cultural issue is that very few scientists have pursued contemplative practice that cultivates consciousness beyond their minds, although recent research in meditation may encourage more to embark on the journey.

Reverting to earlier chapters, the author discusses the yoga of divine love in the Bhagavad-Gita, and compares insights with the Koran and the Gospels. His exposition is profound and illuminating and he reminds readers that the essence of Islam is submission to the will of God, also showing the openness of this tradition if properly understood; prayer and remembrance of God is absolutely critical. The next chapter explores common ground in three traditions, and quotes Ibn Arabi's interesting distinction between two types of gnosis: knowing God through knowing yourself, and knowing God "through you as Him, not as yourself" - again this is a key insight elaborated in the next chapter not only by Ibn Arabi, but also by Shankara and Meister Eckhart. This reflects the three spiritual journeys of Sufism: the journey *from* God, the journey *to* God and the mystical journey *in* God.



This last involves devotional surrender and practice as the practitioner discovers that "the inmost essence of the individual is not other than the transcendent Essence of the Absolute" - full realisation of this is, as the author maintains, the primary goal of all mystical traditions and is achieved through interiorisation "a concentrated withdrawal

from outer awareness towards the innermost centre of consciousness" involving the transcendence of personal will and self.

The next chapter on intimacy with the infinite explains the Hindu term *prapatti* or love for God through absolute surrender. The author explains the background and practical implications, giving examples from Brother Lawrence and his beautifully simple book *The Practice of the Presence of God*, the Sufi Rabi'a and from *Abandonment to Divine Providence* by Jean-Pierre de Caussade. This kind of surrender seems to be the prerequisite for grace, but is a supreme sacrifice so far as the ego is concerned.

There is then a very good chapter on science and spirituality, on recent work in consciousness studies and that draws extensively on the work of David Bohm. As I had been thinking along similar lines myself recently, I was particularly interested in the author's elaboration of the fractal nature of consciousness, reflecting the ancient understanding of as above, so below. He explains the mathematics of the fractal and their presence at various levels of the natural world, arguing that fractal consciousness illuminates mystical oneness or the vertical identity of the mystic with the divinity or essence of God; it can also be used horizontally to explain the manifestation of different religious traditions, which the author illustrates in diagrammatic form, descending from the Absolute. Spiritually, the monotheistic religions see humans as made in the image of God, and, as I discuss in relation to St Bernard elsewhere in this issue, the task is to evolve into the likeness of God, as Plotinus also understood.

Fire as a universal means of transformation represents divine love, as explained in the following chapter with quotations from Rumi, St John of the Cross and Sri Anandamayi Ma. This brings the author to reiterate his central message that love for - and surrender to - God is the way and that all else is peripheral. We are called upon to relinquish our separate self and identity since "without self-effacement there is no grace, and without grace there can be no

transcendence." All this is summed up in 10 principles of divine love (p. 200). The author makes an eloquent and persuasive case for the centrality of the path for divine love, and invites readers to begin their own journey towards their own essence - surely nothing could be more important.

FROM SOUL TO SELF

David Lorimer

THE CONCEPT OF THE SOUL

Edited by Michael Fuller

Cambridge Scholars, 2014,
134 pp., £24.99, p/b -
ISBN 978-1-4438-5489-4

This volume originates in a conference organised by the Science and Religion Forum in 2012, bringing both scientific and religious perspectives. The general trajectory of thinking is indicated in my title for this review, although I could have added from soul to mind to self and then even to a denial of the reality of the self, as in Susan Blackmore. A bugbear in philosophy, psychology and neuroscience is what is technically called substance dualism, namely that the human being consists of two fundamental qualities that interact, as proposed by Sir John Eccles, who only receives one derogatory mention from Nancey Murphy that nothing has come of his project. This is surely mainly because it is such an unpopular view and people would be reluctant to be seen to support and research it if they also want to maintain their conventional reputation.

This brings me to a major omission from this volume - there is only one mention of the potential implications of such phenomena as near death experiences, which is not followed up. The evidence for survival, memories of past lives, apparitions, out of body experiences and laboratory parapsychology is simply bypassed by everyone in this volume, when it is precisely such evidence that calls into question the largely physicalist perspective espoused here, even if it does not all point in the direction of substance dualism implying the survival of the soul after the death of the physical body. Science, philosophy, psychology and theology give an incomplete view if these lines of evidence are not taken into account.

For me, the three most interesting contributions came from Louise Hickman, Nancey Murphy and Chris Frith, the latter having the rare distinction of being both FRS and FBA. Hickman takes an interesting perspective that includes the nature of the self and contemplation of nature



in her consideration of the history of ideas about the soul. She maintains that the biblical understanding of soul is ambiguous, although many theologians take the view that both early Hebrew and Greek thought understand the human person as a holistic integration of soul and body. She discusses Plato and Aristotle in some detail, remarking that Neoplatonists saw no conflict between them. Aristotle's idea of the soul as form is one that has been reproduced in more modern field theory, for instance by Rupert Sheldrake and Brian Goodwin. She emphasises ethical and relational aspects further developed by Plotinus, and considers the thinking of Augustine and Aquinas. She sees Descartes as a decisive break and a reduction of soul to mind, which also has ethical implications as reflected in a mechanistic and exploitative attitude towards nature. This is a nuanced and thorough analysis.

Nancey Murphy takes the title mind, soul and the cognitive neurosciences. She suggests that developments in Biblical studies have aligned themselves to the central physicalist assumption of the cognitive neurosciences, but this begs the question of how we can satisfactorily account for moral responsibility, spirituality and rationality. This leads on to an interesting discussion of downward causation in relation to complex adaptive systems where process is primary – and a much subtler and more relational notion of causation emerges. She argues for the necessity of a non-reductive version of physicalism, and compares this with the dual-aspect monism of Sir John Polkinghorne. However, non-reductive physicalism has nothing to say about the survival of consciousness and one can only assume that death spells extinction in any form of physicalism. Sir John argues that immortality is not a natural feature, but one conferred through the grace of God, so his answer is essentially theological rather than scientific.

Chris Frith draws on a considerable body of research in asking whether the brain is all there is. He argues that we are more embedded in the social world than we realise, partly through the actions of the unconscious. He discusses agency and responsibility rather than framing his discussion in terms of free will, noting that the feeling of regret is also associated with agency and that we are aware of the difference between actions leading to intended and unintended outcomes. He also sees the sense of agency as an important component of cooperation. Reflection on our experience of action and choice can, along with perception, change our behaviour and experience. He suggests that our brains give us the ability to reflect upon our actions and experiences and to discuss these reflections with others,

while observing that culture is a two-way process; he concludes that understanding the brain is necessary, but not sufficient, for understanding the human person that each of us becomes, leading to a culturally emergent concept of the soul as the ability to carry out higher cognitive functions.

So the volume is interesting as far as it goes and the conclusions drawn are consistent with the limited range of phenomena considered. As such, the volume is academically representative as there is very little engagement with the data of psychical research, parapsychology or transpersonal psychology in universities, who prejudicially tend to regard the whole field as rather disreputable, although with no good reason.

PSYCHOLOGY- CONSCIOUSNESS STUDIES

DEATH AND TRANSCENDENT REALITY

David Lorimer

■ MAKING SENSE OF NEAR-DEATH EXPERIENCES

Edited by Mahendra Perera,
Karuppiiah Jagadheesan and
Anthony Peake

Jessica Kingsley, 2012,
176 pp., £18.99, p/b –
ISBN 978-1-84905-149-1

■ NEAR-DEATH EXPERIENCES – UNDERSTANDING VISIONS OF THE AFTERLIFE

John Martin Fischer and Benjamin
Mitchell-Yellin

Oxford, 2016, 191 pp., \$24.95,
h/b – ISBN 978-0-19-046660-2

Over the last 40 years, near-death experiences have become familiar to the general public and are now taken seriously within science and medicine – 65 NDE research studies have been published involving over 3,500 near-death experiencers. The debate about the interpretation continues to evolve, and these books are very differently angled in that respect. The first is a handbook for clinicians, with contributions from many leading international researchers, while the second is more polemical in trying to persuade the reader that NDEs can in fact be adequately explained on the basis of the physicalism taken for granted by

the vast majority of scientists, doctors, philosophers and psychologists, most of whom know little or nothing about the research base of psi.

As Kenneth Ring says in his endorsement, the first book is indeed an invaluable resource for clinicians and other healthcare professionals who need to inform themselves about the nature and profound personal significance of NDEs. The book begins with an overview and early studies, moving on to a critical review of recent epidemiological studies with useful material for prospective researchers including criteria and questions for critical appraisal of studies referring to selection, volunteer and information bias, which the authors then explain. The next chapter explains the phenomenology of NDEs with some illustrative case histories and discussing hallucinations, drug induced states, OBEs and instruments for evaluating the NDE.

The chapter by Ornella Corazza on cross-cultural NDEs is one of the most interesting in the book, citing reports from China, Japan, India, Sri Lanka and Melanesia. Some of this was new to me and the influence of culture is clearly articulated, although the author does conclude that there are four essential common features: realness, transcendence, transformation and the value of the experience. There is some consideration of the psychological aspects of NDEs, also across cultures, and further contributions on the religious significance of NDEs, elements of end-of-life experiences by Peter Fenwick and the future of research. The authors of this last piece take the view that the field has been hampered by lack of precise definition and of falsifiable hypotheses regarding survival. They also point out that research into meaning and transformation can be conducted independently of the issue of veridicality, a point taken up in the second book.

Anthony Peake offers a fascinating contribution on light and near-death experiences, citing research from Dr Engelbert Winkler leading to the development of the Lucid Light Device (Lucia), which we featured at our last Beyond the Brain and helps simulate some of the elements of the NDE. Interestingly, the device was tested on some experts in dream yoga, who felt that the effects closely resemble spiritual experiences. This goes into a discussion of the pineal gland and the finding that it



secretes DMT, which may be a substance responsible for the experiences with Lucia. This leads him to speculate about how we perceive inner and outer light and the question of their relative reality.

The article by Pim van Lommel on pathophysiological aspects of near-death experiences provides a convenient bridge into the second book, where his views are called into question. His pioneering work on cardiac arrest cases led him to conclude that the current materialistic view of the relationship between brain and consciousness is too restricted for a proper understanding of the phenomenon. He points out that the argument that a flatline EEG does not rule out deeper brain activity misses the mark as 'the issue is not whether there is any brain activity of any kind whatsoever, but whether there is brain activity of the specific form regarded by contemporary neuroscience as the necessary condition for conscious experience, with visible and measurable simultaneous activities in many neural centres. And it has been proven that there is no such specific brain activity at all during cardiac arrest.' (p. 92)

John Martin Fischer is a professor of philosophy and project leader of the Templeton Immortality Project, on which his co-author was a postdoctoral assistant. Their approach argues against what they call supernaturalism and makes the case that 'there is good reason to try to fit our understanding of near-death experiences into the world view supported by the physical sciences.' In taking this view, they do not denigrate the transformational nature and meaningful character of these experiences, but contend that this need not be associated with supernaturalism. They define supernaturalism as accepting one or both of two claims: that we have access to a supernatural realm separate from our physical world and that our minds are nonphysical 'and the means by which we come to have experiences do not depend solely on our brains.' (p. 8)

Their response to van Lommel's position above draws on Popper and Eccles' 'promissory materialism', namely the argument that neuroscience is still in its infancy (I'm not sure about that) and may well come to a definitive explanation of the NDE sometime in the future. This sidesteps van Lommel's point about the brain activity understood to be necessary for conscious experience. In addition, they try to get round the finding that 'because of occasional and verifiable out of body experiences we know that the NDE with all reported elements must happen *during* the period of unconsciousness, and not in the first or last seconds of cardiac arrest.' Fischer maintains in relation to well attested cases that it is possible that the

brain registered something at the time, and that the recall and report is cobbled together at a later stage, probably involving an element of false memory, even if this actually corresponds to the reported experience of independent witnesses. The authors admit that this is far-fetched, but strain towards what they call 'physicalist-friendly' explanations. This analysis would have to give a satisfactory account of all 100 cases cited in a recent study *The Self Does Not Die*. Here the devil is in the details, as these accounts strongly suggest that the experience did indeed happen at the time of unconsciousness, not as a subsequent recall.

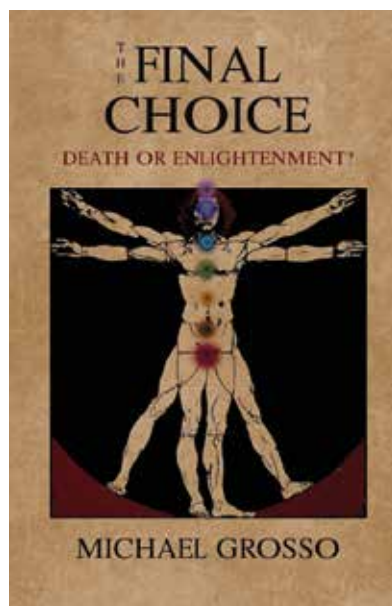
Fischer and Mitchell-Yellin analyse a number of well-known cases, including the van Lommel dentures case, Pam Reynolds, Eben Alexander, and also the ostensible reincarnation memories of James Leuninger and the childhood experience of Colton Burpo. Their strength lies in the call for careful critical analysis and the avoidance of hasty conclusions, but in my view the approach is fundamentally flawed in its Procrustean efforts to shoehorn the NDE into physicalism by using some outlandish and far-fetched reasoning. For instance, they draw on terror management theory and false memory syndrome precisely because they are compatible with a physicalist theory of mind and the firm conviction that there is no afterlife. They apply this as an explanation of why people meet deceased relatives and not strangers in an NDE while ignoring the power of love and cases where the experiencer did not know the relative had died. They also miss the point that the transformational effects of the NDE are closely related to an encounter with spiritual light, often a being of light (this is true for mystical experience more generally), arguing that experiences such as the Grand Canyon can be as transformational. They also discount the experiencer drawing any conclusion that they have experienced an early stage of the afterlife, even if their arguments about sincerity and vividness not being proof of reality do hold some water.

With respect to the Leuninger case there is no mention of the extensive University of Virginia database of more than 2,500 cases of children who remember previous lives, the careful research of Ian Stevenson and his colleagues and the cautious conclusions that he draws from the data. Chapter 11 explains their multifactorial strategy to account for near-death experiences within the conventional physicalist framework of science. Here they reiterate their idea that veridical information may be explained as a construct and try to explain away significant elements of experiences, such as Colton Burpo telling his parents that he met an unborn sister [of whose existence he

had no prior knowledge] who had 'died in your tummy' on the basis that all possible avenues of physical explanation should be exhausted before postulating anything beyond, otherwise there is no 'explanatory progress'. They propose that he might have overheard his parents speaking about this or was using the story to gain attention.

They regard the difficulty of explaining how the nonphysical is supposed to interact with the physical as a knockdown argument against supernaturalism, while failing to point out the corresponding difficulty that neuroscientists do not know how consciousness is generated by the brain, on the assumption that it is. Very little attention has been given to the question of interaction apart from the work of Sir John Eccles suggesting a quantum interface. There is enormous resistance to any form of dualism in the Academy so very few academics have given this question any serious thought, preferring instead to conduct their research within a purely materialistic hypothesis. However, I certainly agree that more attention and research should be devoted to this question. More generally, it is true that the NDE cannot of itself be more than a suggested argument for an afterlife, but researchers should consider the enormous amount of data accumulated over 100 years suggestive of survival of consciousness and work out how these two are connected, as I have tried to do myself.

As with other sceptical books such as *Quantum Leaps in the Wrong Direction* reviewed last spring, the authors only apply belief perseverance and confirmation bias to the work of others. Here there is a whole chapter on this topic where the authors implicitly exclude themselves from this tendency to preserve one's current stock of commitments. In my view it is also significant that Dr Eben Alexander's NDE completely revolutionised his understanding of the relationship between brain and consciousness. Ultimately, readers will have to judge the evidence for themselves, and fundamental questions remain about the relationship between brain and consciousness, and the nature of reality. The greatest mystics of all traditions have reported their own systematic experience of a transcendent or supernatural realm, broadly corresponding to NDE reports – these all have to be dismissed as hallucinations or delusions if a strictly physicalist account of reality is to be maintained. We need to recognise that scientific materialism or scientism is a metaphysical theory and not a fact; and, as Larry LeShan has argued, when so-called impossible facts occur, it is the theory that needs revision or expansion, rather than dismissing or explaining away the evidence.



TECHNOCALYPSE AND TRANSFORMATION

David Lorimer

■ THE FINAL CHOICE

Michael Grosso

White Crow Books, 2017,
208 pp., £14.95, p/b –
ISBN 978-1-78677-029-5

I read the first edition of this provocative and erudite book in 1985, the year after I had met the author in New York on a tour to promote my first book *Survival?* Mike was then teaching philosophy at a local college, and I immediately found a kindred spirit in his broad outlook as reflected in this study. He coined the word 'technocalypse' in 1995 to describe the convergence of the apocalyptic imagination and modern technology with its terrifying imperative to continue upgrading nuclear weapons as each side appears to be falling behind, an insane spiral driven by the exigencies of realpolitik and perhaps signalling a terminal civilisation. The thesis of the book is the necessity of 'a dramatic and broad-based transformation of consciousness to avert our calamitous future' (p. 184) - a theme taken up in many books reviewed in these pages and reflected in the subtitle 'death or transcendence?'. Accordingly, the book is set out in three parts: the crisis, potential to respond and the transformation.

Mike makes a strong case that parapsychology and transpersonal psychology could form the basis of a new fact-based mythology of transcendence and a transition into a larger frame of reference that would harness neglected human potentials. There is no doubt that things have accelerated and that we are nearer a crisis or turning point

than when the book was first published. This larger frame of reference would represent 'a creative synthesis of science and religion, art and technology, reason and intuition, personal and social, masculine and feminine' (p. 9) - all corresponding to a deeper understanding of reality and therefore of human needs. Mike's hope is that more of us can tune into Mind at Large of which we are all intrinsic expressions and act from this more universal outlook. However, as a society we are dominated by scientific materialism and consumerist growth, with a corresponding denial of death and the possibility of transcendence.

What Mike calls the craft of dying involves both living more consciously in harmony with the natural world and preparing to depart from it, including the body. In many traditions about death, Light plays a central transformative role, which also applies to the NDE. The spiritualisation of matter may even on occasion lead to mysterious incorruption of the physical body, as witnessed by a number of saints. The chapter on repressing immortality involves both hunger and resistance in the context of transcendence. It is here that the findings of parapsychology may help with its investigations of OBEs, NDEs, reincarnation memories and survival suggesting that the afterlife may be a permanent OBE, though Mike is also mindful of the artistic potential of ecstasy and imagination. Here he brings in Greek shamanism, phenomenology, Jung and witness consciousness attesting to the reality of Mind at Large. This leads him into an analysis of near death epiphanies, which he regards as a metaphysical paradigm-buster, giving examples of veridical OBE perceptions: 'the NDE is to psychology what quantum mechanics is to physics' (p. 95). Mike places this within the larger history of psychical research which has elicited huge resistance in materialistic circles. He observes that the main obstacle to belief in life after death is not lack of evidence, but rather the mindset of the investigator and the difficulty of deciding between survival and super ESP in specific cases. However, he is surely correct in noting that the pervasive dogma of materialism constrains our perception of the possible.

He then articulates a very useful concept in the archetype of death and enlightenment (ADE) which he thinks shows up in psychedelic experiences, UFO revelations, ancient mystery rituals, dreams and hallucinations. Here the pattern is one from enclosure to disclosure, from darkness to light, 'an expansion of conscious capacity'. Perhaps this archetype is now emerging on a global scale, and Mike speculates about

the imminent possibility of a global NDE, either in nuclear or ecological terms. The uncomfortable truth is that business as usual maximises the chances of disaster, yet there is huge individual, social and economic resistance to undertaking the necessary systemic transformation, especially 'without a felt sense of human solidarity in a critical mass of humanity to launch the change' (p. 132). Existentially, he sees death as annihilation as the mirror of a conception of life as devoid of meaning, which itself is an outcome of materialism and nihilism. In common with Ervin Laszlo, Mike doubts if breakthrough is possible without breakdown.

However, he shows that we are not alone – there is a rich history of helping apparitions, including the Virgin Mary and angels as detailed in the three books by the Dutch physician Hans Moolenburg; then there are miraculous interventions by the likes of St Padre Pio, Daskalos and Peter Deunov, especially to help those close to them. Sometimes these interventions even save lives. A number of prophecies seem to line up with apocalyptic scenarios, archetypally involving death and rebirth and that may be attributed to the activity of Mind at Large. Mike speculates that with our prevailing masculine will to power, capitalism, consumerism and militarism wreaking havoc, we perhaps need a goddess to bring man into psychosexual bliss, or at any rate to a deeper experience of love. He remarks that the cult of the virgin might be seen as a type of Tantric yoga, but I myself would align more with the energy of Mary Magdalene, so powerful where I live and forming part of the political basis of the community at Tamera in Portugal.

The last chapter discusses truth in transformation and imagination rather than conformity. Our enlarged human potential has already been amply illustrated in previous chapters in a variety of contexts – here we need to move beyond fear and paranoia to transformation and metanoia. It is the poetic imagination, as argued by Vico in the early 18th century, that leads to the renewal of society, as much in his day as ours. Parapsychology suggests that belief in a positive outcome is pivotal (sheep and goats) and that we must choose to believe in a vision of renovation in order to hasten its coming (p. 197). However, this will necessitate grassroots movements such as Thrive, whose film has now been seen by 81 million people in 27 languages (www.thrivemovement.com) - the bottom line is that real transformation can only come from within, as Jung also realised in his essay on the undiscovered self. As with David Ray Griffin's book reviewed below, we need to be fully

aware of hidden agendas while directing our energy towards sowing seeds of the new. This book provides readers with a rich and highly informative resource in this respect.

EXPERIMENTS WITH TIME

Paul Kieniewicz

■ TIME AND THE ROSE GARDEN - ENCOUNTERING THE MAGICAL IN THE LIFE AND WORKS OF J.B. PRIESTLEY

Anthony Peake

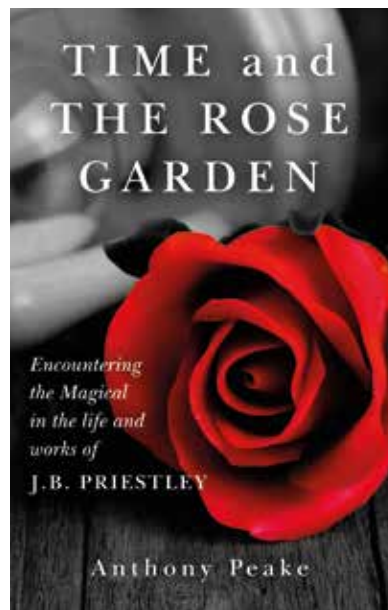
O-Books 2018, 248 pp., £12.99,
p/b - ISBN 978-1-78279-457-8

The theatre is not usually the medium for communicating complex scientific or philosophical thought. Yet many eminent playwrights have tried. Bernard Shaw presented his ideas on Creative Evolution in *Man and Superman*, and in his cycle *Back to Methuselah*. That such theatre is rarely performed today suggests that either the medium is wrong, or that today's audiences expect entertainment rather than philosophy. I'm inclined to think the latter is more the case.

J.B. Priestley, author of several best-selling novels also used the theatre to explore complex ideas such as the nature of time and the human psyche as described by C.G. Jung. Many of his plays were poorly received. Critics didn't know what to make of them. The public who came expecting entertainment were bored. Except for *An Inspector Calls*, Priestley's plays have all but disappeared from theatrical repertoire.

I first encountered his plays in my late teens. Perth Theatre put on *Dangerous Corner*, whose plot is a time loop along the lines of Philip K. Dick, exploring a sequence of events set in motion by a chance comment. Then we see an alternate reality --- what would happen if the chance comment were not made? I subsequently read other plays dealing with time such as *Time and the Cornways*. The latter was recently revived on Broadway but received mixed reviews. Does the future already exist? Can we change our future? What do our dreams tell us about the future? Is the human psyche limited by space and time? J.B. Priestley took those questions as subjects for his plays.

Anthony Peake's book is a guide through Priestley's works, chiefly his dramatic repertoire, and it is much more extensive than I knew. He presents lucid synopses of the most important plays as well



as discussions of the ideas that most influenced Priestley. An early influence was P.D. Ouspensky. Then there was J.W. Dunne's *An Experiment in Time*. Dunne had experienced many precognitive dreams, and dreams of places he had never seen, but later came to know. He proposed that time is not a singular flow, but exists as a series of alternate realities. Each time series also has an observer. We are conscious of an event, of time. But in an altered state we can also see reality from the vantage point of a different observer. This observer can in fact be said to exist beyond time; for him the past, the future and other time series already exist. This is why we can have precognitive dreams, or see real places far away that we have never visited. Priestley explores these ideas in his play, *I have been here before*, where a series of events is influenced by a person's precognitive experience. A disaster that might have happened is consequently avoided.

A second important influence was C.G. Jung. Priestley encountered Jung's writings in the 1930s, about the same time he discovered *The Tibetan Book of the Dead*. His play, *Johnson over Jordan* is about a man who has died and wanders through a dreamlike afterlife where he is forced to look at his life and its significance. The play has been recently revived with Patrick Stewart in the main role. In the 1950s, Priestley met Jung and the two men became friends, and often wrote to each other. His later plays were filled with themes from depth psychology --- the collective unconscious, synchronicity, time slips, the nature of death. Predictably the more offbeat and mystical the play, the poorer its public reception.

Peake points out in particular the closing speech of the Inspector, in *An Inspector Calls*.

We don't live alone. We are members of one body. We are responsible for each other. And I tell you when the time will come when, if men will not learn that lesson, then they will be taught in fire and blood and anguish.

Most audiences hear the Inspector saying that we're responsible for each other. Let's make sure we treat each other kindly. However, Priestley probably meant something else. Humanity is a single organism, quite literally so. Our feeling of separateness is an illusion. What we do affects the entire body. Such a realisation should put to bed all thought of nationalism or racism. It is certainly a message for today's world.

While the book serves as an excellent introduction to the vast corpus of Priestley's works, the most valuable section is towards the end where the author presents fragments of previously unpublished letters. In 1963 Priestley appeared on a BBC radio programme to discuss his book *Man and Time*. He invited listeners to write to him with their accounts of precognitive dreams or personal experiences of time slips such as déjà vu. He received thousands of responses. Peake was able to sift through a collection at Cambridge University and he presents a selection. Unfortunately, it is sometimes difficult to assess their individual trustworthiness. However, they are fascinating in themselves. One theme that dominates is that of the future influencing the past. For example, someone dreams of an accident at a crossroads. Intrigued, they go and visit the place, only to be involved in an accident. Had they never had the dream, they wouldn't have gone there to be involved in the accident! In another case, a person passes a hospital and is seized by a feeling of foreboding. Years later, his best friend happens to die at that hospital. Did the future already exist, and was it influencing the past?

You don't need to be familiar with Priestley's writings to enjoy the provocative material presented in *Time and the Rose Garden*. Readers who want to explore those ideas further will want to read *An Experiment with Time*, and Priestley's writings. Some of his plays are also available on YouTube. The book may also encourage one to pay more attention to one's dreams, and reveries. Perhaps the future is already here.

Paul Kieniewicz is a geologist, astronomer and writer. He is the author of Gaia's Children, co-author with Andrew Glazewski of Harmony of the Universe.

TOWARDS A SPIRITUAL PSYCHIATRY

David Lorimer

■ THE WAYS OF THE SOUL

Dr Andrew Powell (SMN)

Muswell Hill Press, 2018,
250 pp., £16.95, p/b –
ISBN 978-1-90899-523-0

Some 30 years ago, I reviewed an important book by Jacob Needleman entitled *The Way of the Physician*, in which he argued that in order to be a fine physician, one had first to be a fine human being. This also puts me in mind of the answer by Krishnamurti to a question from Fritjof Capra about how to relate his humanity to being a scientist, to which he replied, 'you are a human being first and a scientist second.' This of course applies to all of us in the relationship between the personal and professional, and is highlighted by Peter Fenwick in his foreword to the book when he describes how, during a talk by Andrew Powell on soul therapy, he was 'bowled over by his humanity, his loving presence, his maturity and his deep insight into who we truly are.' I can relate to this through my own experience of hearing Andrew at three of our Beyond the Brain conferences – these talks are reproduced in this volume – he often sat quietly on a stool, reading his paper but making at the same time a deep connection with the audience, who always rated him as the leading speaker.

Peter was also part of the group, chaired by Andrew, who initiated the special interest group in spirituality and psychiatry in the Royal College of Psychiatrists, which has grown over the past 20 or so years to become the largest single special interest group within the College, with 3,000 members. This is a forum for those who wish to put the soul into psychiatry and a way of re-contextualising what Andrew calls 'the institutionalised disregard for spiritual and religious concerns' that prevents psychiatrists from making a deeper soul connection with their patients. Andrew takes the view that by limiting ourselves to a science-based exchange 'we may meet the patient but we will not meet the person, and we will certainly not engage with the soul, so important for the journey of healing and recovery.' This encounter is an opportunity to move beyond 'the medicalisation of human anguish' now costing \$77 billion worth of psychiatric drugs globally.

The papers and presentations printed here date from between 1997 and 2005, and were delivered or written in a number of contexts. They are firmly based on a

holistic and spiritual understanding of life aligned with the view of CG Jung quoted as saying that 'despite the materialist tendency to understand the psyche as a mere reflection or imprint of physical and chemical processes, there is not a single proof of this hypothesis... There is no thus no ground at all for regarding the psyche as something secondary or as an epiphenomenon.' (p. 27) Like Jung, Andrew also draws inspiration from the implications of quantum physics in terms of wholeness and connectedness. Along with his professional training, he has pursued a more personal path that has given him direct insight into such areas as healing, past lives and spirit release therapy, of which many of his colleagues would be suspicious, although they themselves are the losers in terms of not engaging at that depth.

The titles are both descriptive and suggestive: the soul of the newborn child, soul consciousness and human suffering, the unbounded psyche, spirituality and science, psychosocial implications of the shadow, good and evil, mental health and spirituality, spirituality, healing and the mind, death and soul consciousness. In these papers and talks, Andrew integrates his professional expertise with his own spiritual experience and vision, drawing on a number of fascinating case histories that indicate a deeper interconnectedness through realms beyond the physical. He stresses the importance of treating patients' experiences as real, regardless of one's own view, giving them an opportunity to work through their issues towards a greater sense of wholeness. In this respect, spiritual care and love are quite critical, not incidental.

The same applies to spirituality more generally, which Andrew defines as that which makes life meaningful and purposeful, calling for a perspective on life beyond one's own small being where the ego steps out of the way. Some papers address the importance of the shadow and shadow work, both individually and collectively, as a key to the evolution of consciousness and culture on Earth. In my view, teaching young people about the shadow and projection should be a key element in personal and social education, otherwise we will not bring that awareness to our own social interactions. One does not have to look very far in the current geopolitical scene to see this splitting and projection where people who regard themselves and their cause as good and just project the shadow on their enemies. Andrew uses the term *homo spiritus* as an evolutionary step, but I prefer the corresponding term used by Sir George Trevelyan – *homo mulier noeticus*.

I hope this wise and compassionate book will be widely read not only within therapeutic and healing professions, but also by those seeking a deeper understanding of life. Andrew's passionate conviction, which I share, is that spiritual awareness needs to be the cornerstone of psychiatry, and indeed of psychotherapy. In that sense, he sees compassionate love as spirituality in action as a means of helping patients towards healing and greater wholeness (integration or individuation) without forgetting the parallel spiritual journey of the carers themselves.

FROM DOING TO BEING

David Lorimer

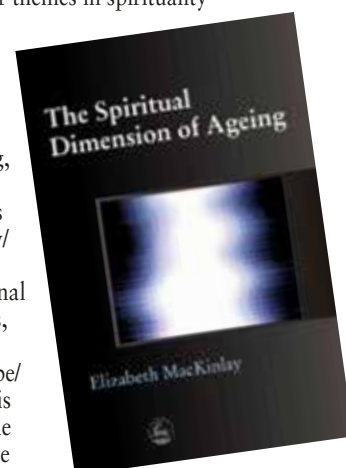
■ THE SPIRITUAL DIMENSION OF AGEING

Elizabeth MacKinlay

Jessica Kingsley, 2017, 392 pp.,
£22.99, p/b.

As a nurse and Anglican priest, the author brings both knowledge and empathy to her subject, arguing in this study that the spiritual dimension constitutes the core of caring. The original edition of 2001 has been updated with a new study of baby boomers and ageing, and it is clear that this generation has different expectations of the spiritual dimension of ageing, especially in relation to what Mary Catherine Bateson calls Adulthood II, the age of active wisdom. They expect to remain more active and productive than previous generations. However, as the title of this review suggests, ageing brings a gradual move away from activity and doing towards being, partly due to diminishing energy. However, whether this results in increased self-centredness or self-transcendence is a key spiritual issue and indeed task.

The author uses the research tool of Spiritual Health Inventories for Elderly People (SHIE), which enables her to identify six major themes in spirituality and ageing (p. 72). These are ultimate meaning in life, response to ultimate meaning, then the more specific dynamics of self-sufficiency/vulnerability, wisdom/provisional to final meanings, relationship/isolation and hope/fear. Spirituality is identified with the sphere of ultimate



meaning in people's lives, the meaning arising from the core of one's being. The study finds spirituality protective against various vicissitudes of ageing, and in the sample there is a definite emphasis on the category of spiritual but not religious. Spirituality is mediated in a number of different ways, including relationship, worship, prayer, nature, art and music. The author then develops the spiritual themes into tasks of ageing in response to request for ultimate meaning. This involves transcending loss/disabilities, finding intimacy with God and/or others, finding final meanings and finding hope. This may entail spiritual reminiscence and life review.

For the Christian, ultimate meaning in life is one centred in God (p. 121), and the tasks become dying to self (self-transcendence), growing into Christ or intimacy with God, growing in wisdom and final meanings, and finding hope in the future. An important part of this process is letting go or stripping away, what Christians call *kenosis*, or emptying. Sociological models use the language of activity theory with people losing former roles and disengagement theory involving withdrawal. Spiritually, this means an increased focus on interiority, which is a deep level means self-transcendence, defined in this book by Paul Tillich as 'the recognition that the goals of increased awareness, freedom and relatedness are only possible when the self continues in relation to the divine source or its being.' (p. 230) The author quotes Victor Frankl on the shift from provisional to final meaning in relation to death. She discusses this in a chapter devoted to wisdom: 'the spirit grows, finding meaning in being, accepting the inevitable losses of life, and letting go of things that are no longer important.' (p. 250) Psychologically, this may entail dealing with guilt and arriving at forgiveness, also struggling with hope and despair, with fears of advancing frailty and dependency.

An important strand running through the book is narrative or story, which helps us forge meaning out of our lives. Not only do we have stories, we are story, and much of our culture consists of stories, telling and listening. This helps us reflect on pattern and purpose where our story is part of our identity, 'an expression of the sum of our being.' (p. 144) In the end, she contends, story is the vehicle of meaning in life. Another key factor in meaning is relationship, and many respondents report that the relationship with their spouse gave them the greatest sense of meaning. For others of a more spiritual turn, they may seek intimacy with God. This may lead to what the author calls spiritual integrity where the individual shows through example and attitude a sense of

peace with themselves and others, 'and development of wholeness of being' (p. 280) A further interesting finding is the difference in the use of humour between men and women – men use humour as a means of deflection when subjects become too personal, while women use it to enhance connection.

Erikson noted 20 years ago that we lack a culturally viable ideal of old age and a concept of the whole of life. In the light of her findings, the author suggests that we need to rethink the contribution of older adults in part-time work and new careers and tap into the wisdom present within the community. She concludes that a spiritual journey and continued spiritual development are a reality to older people as they move towards spiritual integrity as defined above. I found her model of spiritual tasks in relation to themes very helpful and constructive, and one that we can surely apply individually. Hemingway once wrote that as we grow older we do not grow wiser, we grow more so. I see this as the challenge to move from self-centredness to self-transcendence, to move beyond an individual view and adopt a more universal outlook, growing into wholeness of being. In this sense, one can also appreciate the centrality of the spiritual dimension in health care, and as such, the book can be recommended especially to healthcare professionals, but it is also accessible to general readers.

ECOLOGY-FUTURES STUDIES

CREATIVE CHAOS?

David Lorimer

■ BUSH AND CHENEY – HOW THEY RUINED AMERICA AND THE WORLD

David Ray Griffin

Olive Branch Press, 2017,
398 pp., \$50, h/b (p/b now
selling on Amazon for \$14) –
ISBN 978-1-56656-071-9

This brilliant, meticulous and searing analysis is David Ray Griffin's most powerful and important book about the hegemonic foreign policy ambitions of US neoconservatives and the way in which 9/11 was used to pursue these Machiavellian ends. This is a book that should have been written by a mainstream investigative journalist, but David has



done their work for them, which they have signally failed to do by accepting the 9/11 Commission claims and labelling those who questioned these as 'conspiracy theorists', a term originally devised by the CIA to use against their opponents when the position of plausible deniability in undercover operations was under threat. The

book is widely endorsed, for instance by Professor Daniel Sheehan, who remarks that it is 'a clear and non-sensationalist presentation of the historical and scientific facts, by one of our generation's most cogent thinkers. This book should convince any honest and objective person - with a political and scientific IQ above room temperature - that we have been systematically lied to about the events of 9/11 and the American invasions in the Middle East.' Seasoned readers of this journal will recall that I have reviewed all of David's books on 9/11 – here he summarises his case in the context of the foreign-policy background, with the first part devoted to this, and the second to a concise discussion of the shortcomings of official explanations of 9/11.

The failure to prevent 9/11 attack was in itself a massive intelligence disaster, and may partly be explained by some of the background elaborated in this book. The aftermath of 1989 and the fall of the Soviet Union left the US in a unipolar geopolitical position and without any clear enemy. The war on terror declared in the wake of 9/11 gave rise to a new enemy and justified further increases in military expenditure on 'security' grounds. During the 1990s, neoconservative thinkers had urged the US to consolidate its status as an unchallenged superpower and, where deemed necessary in terms of its strategic interests, to act unilaterally to establish a Pax Americana. This injunction was reinforced by the doctrine of American exceptionalism, only recently reiterated by the incoming Secretary of State, James Pompeo and also espoused by John Bolton, the newly appointed National Security Adviser. As a 'benign' power, the US has the right to intervene where it sees fit; other countries such as Russia may be equally unique, but they are not 'exceptional'.

In 1997, William Kristol founded the Project for the New American Century (PNAC) with a call to shape this new

century in a way favourable to American principles and interests. In September 2000, PNAC published a document called *Rebuilding America's Defences* where they advocated the use of US military supremacy to establish an empire including the whole world – hence ‘the next president of the United States must increase military spending to preserve American geopolitical leadership.’ This aim should be understood in the Pentagon context of achieving Full Spectrum Dominance, a policy already developed in the 1990s. Chillingly, the document reflected that the process of transformation might be a slow one in the absence of ‘some catastrophic and catalysing event - like a new Pearl Harbour’ - 9/11 was this event and enabled a fast track of neoconservative policies, beginning with the attack on Afghanistan that had actually been planned many months previously, and the destructive consequences of which are spelt out in detail. It should be noted that Dick Cheney has been a leading figure in the neoconservative movement, and it would be more accurate to describe the Bush – Cheney administration as the Cheney – Bush administration, at least in the first term.

The chapter on military spending, pre-emptive war and regime change is an eye-opener. The idea of pre-emptive-preventive war came to be known as the Bush Doctrine, elaborated in a 2002 national security strategy document with the dangerous clause that America can in self-defence ‘act against such emerging threats before they are fully formed’ - I will come back to this below when discussing drones. Challenging regimes hostile to US interests meant overthrowing them and replacing them, and the 2002 list ominously included Iraq, Iran, Syria, Lebanon, Libya, Somalia and Sudan. The events of the last 15 years show how dangerous it is in terms of unintended consequences to sow a wind without reaping a whirlwind: the emergence of ISIS as a result of the invasion of Iraq is just one example.

This document was written by Philip Zelikow, who would later be named the executive director of the 9/11 commission.

The next chapter is a detailed analysis of the Iraq war and the propaganda campaign of lies required to justify it, both in the US and the UK. David refers to meetings by Sir Richard Dearlove, head of MI6, with members of the Bush administration and CIA director George Tenet. Dearlove remarked that ‘the intelligence and facts are being fixed around the policy’, which was also the case in the UK with the so-called dodgy dossier. Amazingly, a 2008 report by the Centre for Public Integrity enumerates as many as 935 false statements made

by members of the Bush administration in the two years following 9/11. David itemises a few of these with reference to weapons of mass destruction as well as biological and chemical weapons. During this time, the Joint Chiefs of Staff produced a much more cautious assessment, which was set aside. In addition, (p. 61) CIA analysts felt pressured by Dick Cheney to make their assessments fit with the Bush administration’s policy objectives, which dictated the conclusions their analyses should yield. The consequences of the Iraq war are well-known and include an estimated 2.3 million Iraqi deaths, 4,500 American deaths and hundreds of thousands of serious injuries, including 320,000 brain injuries. As to the economic cost, this had reached \$4 trillion by 2014, a devastating opportunity cost in terms of what the money might have been spent on. It should also be noted that the contract for rebuilding Iraqi infrastructure went to Halliburton, of which Dick Cheney is a major shareholder and former chief executive officer.

Space does not permit a detailed discussion of all the global chaos brought about by US interventions in the Middle East on the basis that it could solve all of its problems by means of military power. Chaotic collapse was regarded as a form of ‘creative destruction’ providing a basis for destabilising a regime and eventually removing the incumbent, especially in this geopolitically significant area for oil and gas (p. 109). David discusses Libya, showing how the same kinds of lies were used to bring about regime change there, then he moves on to Syria, where the intractable disaster is ongoing, as we all know. In addition to military factors, it may also be a case that a form of weather warfare was used (this is not suggested in the book) to help create the drought as a key destabilising factor; in either event, whether deliberate or due to climate change, the drought was significant. In Syria, out of the pre-war population of 22 million, 11% have been killed or injured, 5 million have fled the country and a further 8 million are internally displaced. In addition, as we know, this chaos also led to the refugee crisis that precipitated the Brexit vote.

David devotes a separate chapter to drone warfare, posing and responding to a number of key questions: are drone killings acceptable? Are they de facto assassination? Do drone strikes rarely kill civilians? Are drone strikes used only when capture is impossible? Are drone strikes used only for imminent threats? Do drone strikes help defeat terrorism? Don’t drones at least keep American warriors safe? There is no good case to be made for drone warfare extrajudicial killing in the name of ‘self-defence’; sometimes ‘signature strikes’

were employed and continued on a large scale during the Obama administration. The justification is tortuous to say the least where ‘an imminent threat of violent attack does not require the US to have clear evidence that a specific attack on US persons will take place in the immediate future’ (p. 146). This is a ‘more flexible’ understanding of imminence which ‘defines the term in a way that excludes its only actual meaning’ (!).

The chapter on shredding the Constitution makes depressing reading where ‘unaccountable executive power has replaced due process and the checks and balances established by the US constitution’, first embodied in the Patriot Act. David systematically shows how various amendments to the Constitution have been violated: the first on freedom of speech and assembly, the fourth on security against unreasonable searches and seizures, and the fifth relating to deprivation of life, liberty or property without due process of law. In addition, torture violates the Constitution, and the overall result has been an undoing of democracy in the name of security – an Orwellian outcome.

After chapters on potential nuclear and ecological holocaust (the latter the subject of one of David’s previous books – *Unprecedented*), he moves on to a summary analysis of the events of 9/11 and its aftermath. Here he condenses the findings of his previous books to show how numerous miracles, defined as violations of the laws of nature, were necessary in order to sustain the 9/11 Commission[‘S] official explanation. He shows how the choice of Philip Zelikow as Executive Director of this supposedly impartial and independent commission was in fact an insider selection leading to a foregone structure and conclusion and tight control on individual commissioners. As early as March 2003, prior to the first meeting of the commission, Zelikow had prepared a detailed outline including chapter headings, subheadings and sub sub-headings. The pre-ordained task was to explain how the building had been brought down by fire and the impact of the airliners.

So far as the Twin Towers are concerned, their core consisted of 287 steel columns, and steel does not begin to melt until 2,770°F, while fires caused by kerosene can only rise to around 1,700°F. The Twin Towers collapsed at virtually free fall speed, as did WTC 7, which was not hit by an aeroplane, a fact that was not even mentioned by the 9/11 Commission.

The official reports on WTC 7 and the Twin Towers were provided by the National Institute of Standards and

Technology (NIST), which was an agency of the Bush Cheney administration. Its reports are more political than scientific as it is a fact of physics that a steel frame building can only come down essentially in freefall if all the core columns are severed simultaneously by explosives - in the case of Building 7, the roofline remained virtually horizontal throughout the sudden collapse. Readers can consult comparative videos for themselves showing an example of controlled demolition compared with the destruction of Building 7. In addition, massive sections of steel columns and beams were horizontally ejected from the Twin Towers up to 650 feet, which is quite inconsistent with the vertical effects of gravitational collapse. David summarises six miracles required by the official explanation that, in the view of a former NIST employee 'reached a predetermined conclusion by ignoring, dismissing and denying the evidence.' In other words, the official account - and all the more so in the case of Building 7 with 82 steel columns - is a lie.

In his conclusion and after further short chapters on the Pentagon attack and Mohamed Atta, David lists 15 miracles required by the official 9/11 commission explanation. He asks why mainstream media have not properly examined the evidence, and one significant factor already mentioned is the fear of being labelled a 'conspiracy theorist', implying credulity, gullibility and irrationality. In the case of David Ray Griffin, nothing could be further from the truth: his analysis is thorough and forensic. He explains how the CIA invented this conspiracy theory tactic in 1964 in the wake of the Warren Report into the Kennedy assassination. It has become a powerful and intimidating rhetorical device, especially for journalists who pride themselves on their scepticism and objectivity.

Rather than follow the *a priori* argument that no government could be evil or competent enough to cover up 9/11, David urges people to look at the empirical evidence - and if you, the reader, are feeling similarly uncomfortable, I encourage you to read this book and his other ones for yourself and to understand the logic of false flag operations that can be attributed to opponents by means of a suitable propaganda campaign. So far as 9/11 is concerned, there is a large body of informed and expert professional opinion across various disciplines that has studied the evidence and concluded that the official account is false - see also the 9/11 Consensus Panel, the results of which was soon to be published in *9/11 Unmasked: A Six-Year Investigation by an International Review Panel*. This book is a highly significant contribution to exposing the

Big Lie of 9/11 and the neoconservative foreign policy background, and is as such a passionate plea for mainstream media exposure to put a stop to further Machiavellian ambitions for full spectrum dominance of the world.

TOWARDS MORE CONSCIOUS EVOLUTION?

David Lorimer

■ ON PURPOSE

Michael Ruse

Princeton, 2017, 294 pp., £24.95,
h/b - ISBN 978-0-691-17246-0

■ PURPOSE RISING

Edited by Emmanuel Kuntzelman
and Dustin DiPerna

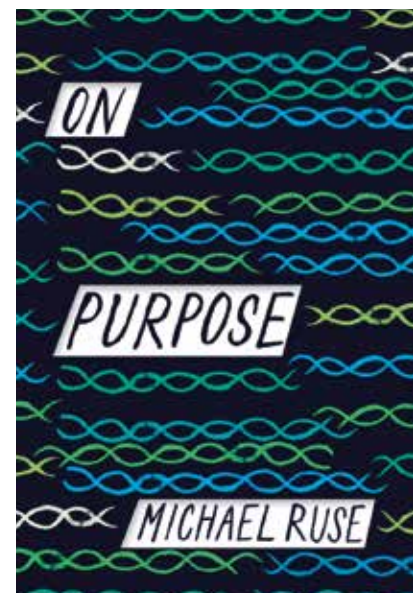
Bright Alliance, 2017,
342 pp., no price given
(see www.brightalliance.org) -
ISBN 978-0-9862826-6-9

Although these books both have purpose in the title, they could scarcely be more different. The first is a history of purpose in Western culture by a historian and philosopher of science who has written widely on Darwin and evolution, while the second reflects its subtitle referring to a global movement of transformation and meaning. Both acknowledge in their own way that there is a contemporary crisis of purpose and meaning, but their takes come from different angles - Ruse is at home with the overall modern evolutionary view while at the same time finding a way of integrating purpose into the story. My own involvement in purpose is educational - are Inspiring Purpose programme for young people seeks to help them formulate their own sense of purpose by means of a three-page reflective template (www.inspiring-purpose.org.uk).

Modern science, especially biology, has tried to emancipate itself from the kind of purpose represented by Aristotle's final causality (why), focusing instead exclusively on efficient causes (how), and repudiating the argument from design and replacing it with natural selection. The Greek word giving rise to the notion of purpose is *telos*, meaning end or goal and expressed in the word teleology - even Jacques Monod found he could not dispense with this notion altogether, inventing instead the cognate teleonomy. For Ruse, mind makes things deeply, irreducibly teleological: 'mind is the apotheosis of final cause, drenched in purpose. It's all about values.' (p. 182) The interest of this book lies in its historical analysis going back to Athens and Jerusalem. Athens is represented by

Plato and Aristotle, while treatment of Christian purpose begins with Augustine.

In his discussion of efficient and final causality, Ruse identifies the former with looking backwards and the latter looking forwards, represented by pushing from past and pulling from the future. One can readily understand how efficient causality turns into determinism and a denial of free will, also associated with a focus on so-called primary qualities involving quantity rather than so-called secondary qualities relating to quality and subjective experience. Overall, the author identifies three main historical approaches: the Platonic where God puts purpose into the world - which he calls external teleology, also structured into the Christian narrative; the Aristotelian principle of ordering where purpose is part of the fabric of the world (internal teleology) and the mind-given purpose of Kant where we project purpose onto the world. I found this a useful classification, also as a background to his extensive treatment of Darwin. Ruse finds elements of Plato and Aristotle reappearing in a modern guise, the former in intelligent design theory, guided evolution, the anthropic principle and the Gaia hypothesis; then Aristotle reappears self-organisation (also prefigured in Schelling and Goethe), vital forces (his discussion here includes Brian Goodwin) and in Whitehead. He is sceptical about the Gaia hypothesis, citing the struggle for existence as sinking any thoughts of overall integration, but he seems to miss the point that the initial insight was related to the composition of the atmosphere and its interaction with life. Interestingly, he sees the influence of Steiner on both Rachel Carson and James Lovelock, the latter through his friendship with Sir William Golding - himself steeped in Steiner.



Ruse's last three chapters address mind, religion and ends. He sees mind as another adaptation, running together the organic with the mental, also in terms of evolution. As soon as one separates the mind out, it becomes conceptually problematic to put things back together, and he is not tempted by recent moves towards panpsychism. He just takes the mind and sentience as given. He moves on from there to discuss the important distinction between reasons and causes, using his daughter's decision to become a lawyer as an example. This brings one back to final and efficient causes, where reason represents our capacity to think in terms of final causes – and for us, these are inseparable; a pure causally efficient description is simply incomplete and has to take account of reason and intention. He ends on a personal note, saying that the three things that have given purpose to his own life are family, friendship and the life of the mind – unexpectedly in this context, he cites Sartre's essay on existentialism as a humanism where we are responsible for creating our own meaning.

If Ruse is sceptical about progress except in limited areas, the tone of the second book is much more optimistic and discerns an overall purpose in evolution as well as ways in which we can contribute towards this unfolding process. Ervin Laszlo sees the manifestation of coherence and intelligence in evolution, with the overall direction moving 'towards creating systems that attain, maintain and optimise intrinsic and extrinsic coherence' (p. 36) and leading towards what he calls supercoherence – in that sense actions that support this are evolutionary: cooperation, symbiosis, compassion. Broadly, the contributions in this volume build on the vision of Teilhard de Chardin represented in the ideas of convergence, complexity and the power of love.

The three parts look at theory, the journey and the practice. Ken Wilber and Dustin DiPerna ask if we can move towards a deliberately developmental civilisation in terms of waking up, growing up and cleaning up – the latter a reference to working with the shadow, an important theme in the book as a whole. Other contributions bring in the power of feminine purpose, the implications of seeing the universe as living rather than dead, and the role of purpose in the Western mystery tradition. Some chapters present complete models such as the circle of purpose, discovering your divine dharma and wayfinding. Nick Jankel presents his view of spiritual atheism where 'purpose is enlightenment becoming impact. It is love in action.' These are terms usually associated with transcendence, but Jankel insists on a

spirituality without this metaphysical commitment – it is clearly articulated even if I disagree with his premise.

For me, the most powerful chapter is by Barbara Marx Hubbard, now in her late 80s and whose quest goes back to Paris in 1948 where she met her future husband, Earl Hubbard. Her fundamental question was: what do you think is the meaning of all our new scientific, technological and industrial power that is good? She recalls the key stages of her own journey including the influences of Abraham Maslow, Teilhard de Chardin, Sri Aurobindo, Buckminster Fuller, Jonas Salk and John Whiteside. In the first encounter, Salk told her that she was a mutant and effectively a herald of a new stage of evolution involving both high-tech and high love. She has been working intensively and co-creatively on this agenda since the 1970s, encouraging others to do the same and to help birth humanity as a universal species – a planetary awakening from fear to love as conscious evolutionaries. This is an admittedly optimistic agenda, especially given what look like recent retrograde steps, although these too can be a spur to a more general awakening. We desperately need an informed vision of hope, meaning and purpose that is nevertheless fully aware of reactionary powers and forces. There is a growing sense of outer necessity pressurising us to change, and the key thing is awakening our corresponding inner capacity on a sufficient scale. This book provides plenty of inspiration in this respect.

THE ENEMY IS US

David Lorimer

■ THE ENDS OF THE WORLD

Deborah Danowski and Eduardo Viveiros de Castro

Polity Books, 2017,
186 pp., £14.99, p/b –
ISBN 978-1-509-50398-8

The Christian West has lived with apocalyptic prospects for more than 2000 years, where the end of the world was associated with the second coming of Christ, with eschatology or the last things as described in the New Testament. For evangelical Christians in America, this is still a very present and defining reality, which is one reason for the neglect of environmental issues as they are convinced we are already living in the end times. As many readers will be aware, this stance is correlated with right wing Republican politics. Our individual lives also have an eschatological structure at least in respect of physical death, although many no longer believe in the other

elements of judgement, heaven and hell. And now, in the Anthropocene – some would say Capitalocene – Age, we have further collective threats hanging over us arising directly from our overall impact on planetary ecosystems, both in terms of numbers and consumption. People as eminent as Lord Martin Rees give us only a 50% chance of survival to 2100.

The authors both live in Brazil, and are hence familiar with Amerindian cosmologies that have cyclical and periodic purgations and renewals – they characterise these as anthropomorphic, while our current view is anthropocentric. This background allows them an interesting perspective on one of the main themes of the book, the Enlightenment inheritance of inevitable progress towards a more desirable future. Economic progress characterised by continuous GDP growth is still the default position of governments around the world, and these people 'find repugnant the very idea of deceleration, degrowth, applying brakes, descent – *sufficiency* (p. 121). And yet this opposite trend is also apparent in what I call glocalisation – people buying local produce at farmers' markets and engaged in renewing their local communities. The Slow Movement is a further manifestation of this counter-culture as are views represented for more than 40 years in *Resurgence* and *The Ecologist*.

This tension or dichotomy is apparent in the terminology of humans or moderns vs Terrans, those on the side of the Earth. The future of the former, techno-moderns, welcomes acceleration, and there is even a document called The Acceleration Manifesto anticipating a technological Rapture after the Singularity when we will be able to upload the contents of our minds into a machine, and thus achieve a cyber-immortality. Moderns typify exceptionalism, where we have gained a degree of control over nature with its accompanying alienation and the covering over of Nature with human accretions. Accelerationists believe that we must choose between the animal we were and the machine we will be. They believe in a perpetual *plus ultra* – (always further) while the authors call for a movement *plus intra* – reflecting, slowing down, resisting computer zombification.

One of the important thinkers cited in the book is Isabelle Stengers, a former collaborator and co-author with Ilya Prigogine. She writes about the intrusion of Gaia as an unwelcome force or event that threatens a new barbarism – we need to stop and think – *plus intra*. Environmental degradation is in fact inseparable from capitalist development and the pressure of our numbers and resource consumption already mentioned

– hence the birth of ‘sustainable development’ but the advantages have accrued to the few rather than the many in an uneven process. Humans as moderns are responsible before Terrans, which probably include most readers of this publication. However, the distinction is probably too sharp as many of us sit on both sides of the fence. We maintain a consumer lifestyle, perhaps with conscious choices, while also lending support to Terran protests and movements. Nor are we the main drivers now – as I pointed out in *The Protein Crunch*, it is the Chinese and Indian middle class, whose demand swamps ours. Nevertheless, I feel obliged to register as a Terran and play a small part in co-creating a sustainable future – and books such as these help one think more clearly.

GENERAL

HOPING TO KNOW OURSELVES

Martin Lockley

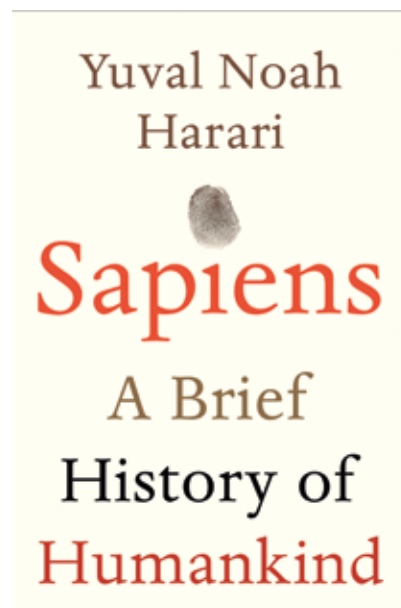
■ SAPIENS: A BRIEF HISTORY OF HUMANKIND

Yuval Noah Harari

Harper Collins, 2015,
464 pp., \$35.00 h/b -
ISBN 978-0-06-231609-7

One might expect *Sapiens: a brief history of humankind* by historian Yuval Noah Harari (YNH) to cover less than philosopher Ken Wilber’s “*A Brief History of Everything*” or Bill Bryson’s “*A Short History of Nearly Everything*.” Bryson and Wilber managed to write about ‘everything’ while hardly ever touching on the same subjects (*Network* 87)! Best seller *Sapiens*, by Oxford PhD and Hebrew University of Jerusalem lecturer has created quite a buzz, and has already been followed up by the sequel *Homo Deus* (reviewed below). The ‘buzz,’ at least for *Sapiens*, is in my opinion quite well deserved. YNH writes crisply and confidently. He has a knack for shining clear lights on the meaningful events, themes and turning points in our species journey to date, helping us learn or at least appreciate the so called ‘lessons of history.’

His fluent style is simultaneously chatty, a little provocative and occasionally blunt. For example, while marching us through pre-*sapiens* prehistory (Neanderthals, cave art, cognitive revolutions and all that) he tosses out “it is doubtful whether *Homo sapiens* will be around a thousand years from now.” Certainly given the dating of the cognitive, agricultural and scientific revolutions at about ~70,000, ~12,000



and 500 BP, the structure around which the book is built, we may well ask if we have any idea where this accelerating trajectory is leading us. YNH uses the term *Sapiens* for ‘our’ species *H. sapiens* and the term ‘human’ for all half dozen members of the genus *Homo* (more or less embracing species, including the earliest crude tool-users, back to ~3 million years BP). He credits 30,000-year-old *H. sapiens* with the same physical, emotional and intellectual abilities we have, a perhaps debatable claim when considering the consciousness structure paradigms and concomitant cultural institutions recognised by Gebser and Wilber. He also equates our ability to think and imagine with the notion that we create unreal ‘fictions,’ but one is left unclear as to whether he means that thoughts, ideas and cultural symbols are somehow unreal. After all civilisations rise, fall assimilate and re-invent themselves around ideologies and YNH happily observes and acknowledges such ‘fiction’ dynamics.

The agricultural revolution is described, ironically as a ‘fraud’ and a trap when wheat domesticated humans and not vice versa. It tied us down and forced us into longer hours of back-breaking labour, including weeding. However, it had advantages because settled villages, towns and eventually city states reaped the benefits of surplus and ‘collective power’ making security, cooperation and future planning important. Codes of law and justice appeared. Jump forward and we see the emergence of notions of humanism and equality on which YNH expounds with appropriate political correctness. And rightly so. His expositions on racial and gender equality are timely and adroitly woven in to historical contexts. The book, by the way, is well-illustrated in colour, and conveniently broken into

chapters with many catchy subheadings. There is a marvelous illustration of Louis XIV with long curly hair, silk stockings, colourful embroidered cloak and high heels – the picture of “eighteenth century masculinity” – contrasted with President Obama in a drab navy blue suit, with nothing to distinguish him from a thousand other suits.

Midway through the book YNH summarises much of his exposition with the statement that religion, along with empire and money has been one of the ‘three great unifiers of humankind.’ Again YNH might have cited authors like Wilber and William Irwin Thompson who have noted the rise of ‘collective power’ from tribe to nation state to global ‘empire,’ alongside concomitant evolution of communications and media (oral, print, electronic etc.). Ironically, while authors like Jared Diamond have seen human evolution as determined by tangibles like ‘*Guns, Germs and Steel*’ YNH talks about ‘fictions’ yet he acknowledges the power of intangibles (religion, empire and money) to influence history. [Of course tangibles reflect intangibles and vice versa].

In his exposition on the evolution of religion YNH offers interesting perspectives on how animism, polytheism, monotheism and humanism reflect changing ideologies, thus reflecting what Gebserian-Wilberian thought would call ‘consciousness structures.’ When using the phrase ‘spectrum of consciousness’ he seems unaware that this was the title of Wilber’s first book. Despite overlooking (not citing) these scholars and their parallel historical paradigms, in both books, we may agree with YNH that ‘we study history not to know the future, but to widen our horizons, to understand that our present situation is neither natural or inevitable, and that we consequently have many more possibilities before us than we imagine.’ In other words, as Gebser suggested, new consciousness structures can emerge at any time, and the future is not easily foreseen!

On science YNH notes the somewhat obvious Renaissance sea change beginning with the modern era some 500 years ago. Premodern rulers gave money to priests and philosopher-scientists to legitimise regime ideals and social order. (What’s new)? Today our governments give money to scientists to create ‘new’ technologies (weapons, medications) and to stimulate the economy. The latter fosters ideals of progress and the bond between science (technology) and empire (social order). Thus, conflicting ideologies arise as to how to best maintain socio-political order: e.g., Marxism v. capitalism, etc., Exploration of new frontiers (empires) gave rise to the likes of Darwin, Wallace and Humboldt.

While science admits ignorance in order to explore the unknown, and in predicting the future, it creates its own dogmas, and “can flourish only in alliance with some religion or ideology.”

YNH asks why Western Europe became dominant in global production and finance between ~1750 and ~1850. Who would have predicted the ‘bizarre’ fact that little old GB would open the first commercial railroad and conquer the continent of faraway Australia, lay its rail lines, and also produce Newton, Darwin and Wallace. Was the desire for knowledge linked to the ‘mentality of conquest’? Did European empires create most of the world as we know it and the ostensibly democratic, humanist, tolerance ideologies and so create the self-same cultural norms we use to judge them? What of the role of societies and cultures that do not share these values creating the so-called east-west ‘clash of civilisations.’ YNH also shines light on the differences between premodern zero-sum, slow growth and modern rapid growth and capital reinvestment economies. His megatrends in the evolution of economies?

YNH touches on the theme of abundance, though not in so many words, when noting that the sun produces more energy, (3,766,800 exajoules) a day, than stored in all our fossil fuels. Thus, the industrial revolution, which YNH calls a second agricultural revolution (food for all) has produced an ‘Ocean of Energy’ to fuel ‘The Wheels of Industry’ and ultimately ‘The Age of Shopping.’ These snappy headings are symptomatic of ‘Modern Times’ (Chaplin’s film) – the ‘Permanent Revolution’ launched in the technological 20th century, from which there appears no turning back. Many, he says, call this ‘the destruction of nature’, but YNH calls this ‘change’ and reminds us that extinctions are followed by new evolutionary radiations. He holds that “rumours of our own extinction are premature” but notes there has been a modern ‘Collapse of the Family and Community’ leading to the strengthening of the individual, the state and the market.

He also comments on what he calls ‘Perpetuum Mobile’ noting the rapid pace of change manifest in an Internet, unknown 20 years ago, which we already take for granted. We also take for granted that global society will respond humanely to natural disasters. More people died from car accidents in 2000 than in all global wars and crimes. The murder rate is 1/40th of what it was in medieval Europe, and even allowing for failed states statistics the global rate is ¼ of what it used to be. All this has taken place in the Modern era while European empires have collapsed. Does this mean we can now all live happily ever after as YNH’s penultimate chapter intimates?

Certainly happiness and well-being (natural and chemical) have become fashionable goals in the west and beyond. Nobel laureate Daniel Kahneman is cited for his work in finding that happiness is not ‘the surplus of pleasant over unpleasant moments’ but rather comes from ‘seeing one’s life in its entirety as meaningful.’ YNH explores the ‘know thyself’ question, touching on Buddhism’s tenet that suffering arises from the desire for elusive and fleeting feelings of happiness. If the desire for happiness is related to capturing such inner feelings it is, he suggests, very non-Buddhist, and we have a long way to go to understand how to achieve happiness and meaning, and to ‘know ourselves.’ We may know what we can do better than what we want to do, or to paraphrase Einstein, we can’t know ourselves and our motivations with our current mindsets. [Maybe uncertainty is inevitable in life as experience so often proves]. Ironically, while biologists scorn intelligent design advocates, they are on a fast track to replacing natural selection with intelligent design, and thus to playing God in the laboratory. YNH ends by asking will we be accountable, because there is nothing “more dangerous than dissatisfied and irresponsible gods who don’t know what they want?”

QUO VADIS SAPIENS?

Martin Lockley

■ HOMO DEUS. A BRIEF HISTORY OF TOMORROW

Yuval Noah Harari

Harper Collins, 2017,
513 pp., \$35.00 h/b
ISBN 978-0-06-246431-6

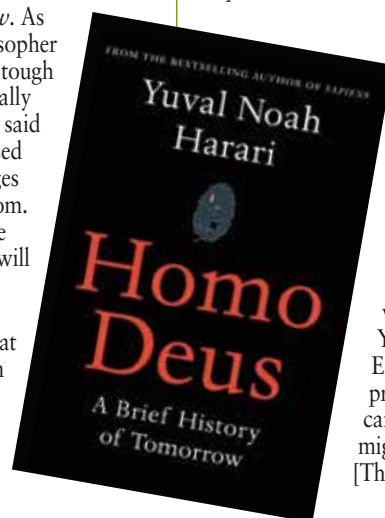
Historian Yuval Noah Harari (YNH), author of the successful book *Sapiens*, a *Brief History of Mankind*, reviewed above, ended that exposition by asking if we know ourselves well enough to be accountable in future. YNH has now turned his attention to the future with *Homo Deus: a brief history of tomorrow*. As the popular baseball philosopher Yogi Berra once said “it is tough making predictions, especially about the future.” He also said “the future ain’t what it used to be.” YNH uses 400 pages to prove this bucolic wisdom. SMN reader may not agree with all he has to say, but will likely find it interesting.

In general, YNH argues that we are at a pivotal point in history involving a “new human agenda.” Much as the news may dissuade us from optimism, the

facts show a global decrease in mortality from famine, plague and war. More people die from overeating than starvation, and most famines are “political” caused by humans not nature. Turning to the age-old metaphysical question of death, YNH boldly states that “for modern people death is a technical problem” to be solved. [He is presumably not familiar with such die-with-dignity projects fostered by Peter Fenwick et al.,]. He does nod to spiritual beliefs (reincarnation, the afterlife) but gives them short shrift, apparently intimating, as he did in *Sapiens*, that these are ‘fictions,’ or somehow unreal.

He takes Google engineer’s efforts “to solve death” rather too seriously, though with some skepticism. He also approaches the “the right to happiness” from a technological perspective as “determined” by biochemistry, at least in the modern mind. [I’d prefer him to have said ‘some’ modern minds]. All this raises, for this reader, perennial metaphysical questions about immortality and our intuitions about meaning and the spiritual dimension, which YNH seems a little coy about tackling head on. In other words, he frequently discusses the latest biotechnology and its implications and then ruminates inconclusively on the directions such paths may lead us. There is nothing wrong with uncertainty as intimated in my review of *Sapiens*. We would indeed be at a “historical” turning point if humankind’s perennial questions were about to be solved biochemically by early 21st century science. While SMN members may have faith in some medications, the problems of drug abuse, legal and illegal, are hardly compatible with authentic happiness, and certainly they are not any kind of global panacea. YNH is not unaware of these issues, and after ostensibly suggesting hope for technical solutions, swings over to say “it is far from certain that humankind should invest so much effort in the biochemical pursuit of happiness.” Asking if this is “the highest aim of human society.” Fair questions in a troubled world.

From here we make a quantum leap to the possibility of a re-engineering of the human mind and the question of what “beings with a *different* kind of mind do with biotechnology.” YNH admits, echoing Einstein, that “our present day minds cannot grasp what might happen next.” [There seems to be an



evolutionary chicken and egg problem here. Technology is the birth-child of the human mind, and the creation, for better or worse of what the mind then has to deal with. Rudolf Steiner said only *sapiens* we create problems in order to solve them. YNH worries, as many do, about the “breakneck” speed of progress and upheaval.” His title – *Homo Deus* – refers to the modern humanist paradigm, which seeks utopia and the attaining of near-divine powers and status [however that is conceived] in a culture where, for many, God is irrelevant and humans have “conquered the world.” But are God, conscience and perennial good v. evil questions really so irrelevant? Inevitably the subject of consciousness arises. While happily confessing that we do not understand it, YNH compares and contrasts it with intelligence, especially the artificial (AI) variety.

Much of the book’s thesis returns to the question of whether AI is getting so far ahead of humankind as to send us in unforeseen directions. [This may be the case, but are such paradigms shift so new? The Paleolithic, Neolithic, industrial and electronic-media revolutions all launched humanity on new trajectories, with concomitant chicken and egg shifts in consciousness]. Here I was a little disappointed with YNH for omitting reference to pertinent if not classic literature on the evolution of consciousness. He talks of the Anthropocene, globalisation and future humans with faculties far superior to we moderns, but does not mention Teilhard de Chardin’s notions of biosphere, planetisation and “Omega Man.” Nor does he refer to the Gebserian and Wilberian paradigms of consciousness structures (Archaic, Magical, Mythical, Mental and Integral). [In my view shifts in consciousness are ultimately organic, and even our technological creations (biochemical and electronic) are part of the evolutionary continuum, as Teilhard believed].

Here YNH might have got some mileage with an explicit exposition on the “Conscious Evolution” paradigm. He often seems to imply that he has just noticed runaway cultural and technological evolution and the potential pitfalls it may entail. But the spectre of technological Frankenstein creations is not new (e.g., atom bombs) and recognising such is a manifestation of Conscious Evolution, that peculiarly human faculty which Teilhard and his supporters (e.g., Julian Huxley) characterised as evolution becoming conscious of itself. These in turn are manifestations of the emergence of new consciousness structures. Unpredictable quantum leaps still fit the punctuated, and paradigm shift dynamics, and it is fair to say we do not know what the future holds.

[Phase shifts involve uncertainty]. However, I agree with YNH that humanism’s search for utopian happiness and problem-solving technology simply reinvents religious aspiration, complete with belief in heaven, immortality and all that!

On the subject of unpredictable quantum leaps, what of Peter Russell’s ‘Global Brain’ concept, which in the early 1980s was prescient in foreshadowing the Internet? Popular and provocative as YNH’s books might be in some circles, the Global Brain idea, is just as popular and intriguing [and if you ask Wikipedia!] connected to the aforementioned ideas of Teilhard on ‘organicism’, ‘encyclopedism’, ‘emergentism’, ‘evolutionary cybernetics’ and ‘macrobiological evolution’. None of these topics are addressed directly by YNH. Could this be because, according to Wikipedia “This approach is most popular in New Age circles, which emphasise growth in consciousness rather than scientific modeling or the implementation of technological and social systems.” But one must ask where do scientific modeling, not to mention AI and big brother algorithmic regulation paradigms come from if not changes or “growth” in consciousness? So has YNH avoided ostensibly “New Age” thinking deliberately?

A few of my academic colleagues continue to lament the straight-jacketed thinking of the ‘mainstream’ intellectual fraternity, who are afraid to think outside the box, on big picture or ‘holistic’ and ‘synthetic’ questions, for fear of not appearing objective, analytical and suitably rational. [Intellectual ideology]! We cannot charge that YNH avoids big picture even holistic questions, but we may ask 1) whether he is approaching them with a holistic and integral consciousness, and 2) whether as a historian he has some obligation to view so called “New Age” thinking [however defined] as an authentic sociological phenomenon. Related to this is a third point (3): purveyors of these big noospheric and global brain ideas were competent, often innovative, scientists, who cannot be branded as ‘new age’ in any derogatory or non-objective sense. They have been, and will remain, serious contributors to scientific history, deserving of attention not only from the Gebser-Wilber-Thompson crowd [dare we mention Rudolf Steiner!?] but also from the likes of Bryson and YNH who take on big picture histories of our species and its scientific-intellectual achievements without much of a nod to some of these perennial socio-spiritual and scientific questions of meaning.

One area where YNH nods to affirmatively to collective consciousness is in reference to intersubjective meaning, dealt with under the heading ‘The Web of Meaning.’

He asserts that ‘people...assume there are only two types of reality’ objective and subjective, with no third option. While this simplistic binary thinking has been an impediment to creative thinking, most people would recognise that there is a third option ‘intersubjective reality’ or what YNH calls ‘imagined orders’, things we collectively agree on like money, religion and empire, agents that unify societies to varying degrees. As he intimated in *Sapiens*, it is these intersubjective, imagined realities that have allowed *Homo sapiens* to ‘rule the world’ and organise ‘crusades, socialist revolutions and human rights movements’ all with their ideological or imagined baggage, and all raising the ever debatable subject of human ‘exceptionalism.’ With these caveats YNH ends with a penultimate chapter on ‘The Ocean of Consciousness’ and a final one on ‘The Data Religion.’

My take was that YNH struggles, as we all do, with understanding the complexities of consciousness, human and animal, on the one hand, and on the other, the problems that a barrage of information and data create for sifting out any wisdom. YNH does not say this explicitly, but does point out that we need to learn what to ‘ignore.’ This assessment of our species condition is more or less the self-evident part of human self-consciousness and its ability to “know itself,” and what is meaningful. The uncertain part is in what we do not know about our species condition, where new consciousness structures might lead us in future, not just as individual seekers with spiritual sensibilities but as a species coming to better know its ecological and ethical place in the biosphere.

So the perennial human condition has not changed too much when it comes to uncertainty: the questions of meaning and destiny remain necessarily elusive if curiosity, aspiration and questing is to continue. The future remains difficult to predict, and the questions remain: *Quo vadis sapiens?* SMN members may not always agree with YNH’s expositions but, in fairness, some of this may be due to semantic quibbles about paradigms, definitions and the sources he chose to ‘ignore’ or address with different vocabulary and ‘spin’. The important thing is that he asks questions most of us have or should have on our minds at this latest turning point in the evolution of humankind, biosphere and contributions by authors who use big words like *Deus* in their provocative book titles!

Professor Martin Lockley is emeritus professor of palaeontology and consciousness studies at the University of Denver, Colorado.



David Lorimer

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

Books in Brief

SCIENCE/ PHILOSOPHY OF SCIENCE

■ The Ascent of John Tyndall

Roland Jackson

Oxford 2018, 556 pp., £25, h/b.

This highly readable and fascinating biography is the first for over 70 years of John Tyndall (1822 – 1893) a Victorian scientist who was also a mountaineer and public intellectual. Associated for a long time with the Royal Institution, Tyndall was one of an elite group of scientists and became a Fellow of the Royal Society in 1852, having completed part of his education at universities in Germany. His affiliations included membership of the famous X-Club, the Metaphysical Society and another dining club with many of the leading figures of the day such as Gladstone. He took an active part in the outstanding debates of the day such as science and religion, where he tried to steer a middle path. His philosophy was based on the now much more familiar concept of self-organisation, a truly prescient insight. As a scientist, he made contributions to climate science in discovering the physical basis of the greenhouse effect and why the sky is blue, but also to acoustics, magnetism and bacteriology. He was famous as a popular science communicator. His many years of summer trips to the Alps enabled him not only to research glaciers, but also to accomplish mountaineering feats such as being the first to traverse the Matterhorn and to ascend the Weissshorn. I was struck by the importance of the annual British Association meetings for presentations by the leading scientists at the day, many of whom were also officers. This biography fills an important gap while also painting a vivid picture of Victorian scientific, intellectual and political life.

■ A Different Kind of Animal

Robert Boyd

Princeton 2018, 229 pp., £22.95, h/b.

Based on the Tanner Lectures given in Princeton, this wide-ranging book argues that cultural evolution and adaptation are the primary factors responsible for human dominance rather than our cognitive ability. We demonstrate the capacity to cooperate on a large scale, but this requires the establishment of norms and ultimately sanctions to motivate and keep people in line; on a smaller scale, co-operation can be driven by mutuality and reciprocity. It is the accumulated cultural learning and evolution that is critical, which the author shows through a number of anthropological examples. Cooperation is also required for the production of public goods, not to mention warfare. Four commentators from different disciplines give their views, to which Boyd replies in a final response. One line of criticism is that we are equally competitive and manipulative, while another questioned the balance of individual and social. An interesting observation towards the end is that undergraduates taking classes in economics, anthropology and psychology are told different and incompatible things about human behaviour in society. This can lead to what Boyd calls a Balkanisation into three camps: human behavioural ecologists, evolutionary psychologists and cultural evolution researchers in their own exclusive silos, when students need them to communicate and debate the value and relevance of their respective positions.

■ Enlightenment NOW: the case for reason, science, humanism and progress

Steven Pinker

Allen Lane, 2018, 556 pp., £25.

For full review see *Metascience*
<http://rdcu.be/JWBp>

Nicholas Maxwell writes: This is in many ways a terrific book from which I have learnt much. But it is also deeply flawed. Science and reason are at the heart of the book, but the conceptions that Steven Pinker defends are damagingly irrational.

And these defective conceptions of science and reason, as a result of being associated with the Enlightenment Programme for the past two or three centuries, have been responsible, in part, for the genesis of the global problems we now suffer from, and our current inability to deal with them properly. There is not a glimmering of an awareness of any of this in Pinker's book. This flaw in *Enlightenment NOW* is serious indeed.

■ The Rise of Yeast

Nicholas P. Money

Oxford 2018, 210 pp., £18.99, h/b.

Subtitled 'how the sugar fungus shaped civilisation', this is a fascinating account of the importance of yeast, especially in brewing, winemaking and baking. The author traces the rise of yeast to agricultural settlement, pointing out that it takes a village to run the brewery or tend a vineyard. Interestingly, it also appears that some animals enjoy fermented fruit, while the author defines us in this context as a bipedal ape that makes beer and wine wherever it settles and drinks alcohol for pleasure. The book ranges widely over the biology and potential of yeast, also controversially in relation to biofuels. There is a huge variety of yeasts, some of which have fundamental effects on our health and the microbiome. While most species are benign and symbiotic, some are hostile and undermine our immune systems. Overall, the book gives an interesting new angle on cultural evolution.

■ The Hidden Secrets of Water

Paolo Consigli

Watkins 2017 (2008), 348 pp., £12.99, p/b.

The author is a physician who has specialised in psychology, acupuncture and traditional Chinese medicine. Here he has produced perhaps the most comprehensive book available on every aspect of water, and also at different levels. Among the topics are the water planet, the pioneering work of Viktor Schauberger and Theodore Schwenk, water as a key symbol in Taoism, the aquatic ape, water and birth, water inside us and in cells, water and consciousness, water, information memory, and water as medicine. There is not only the constitution of water, but also how it behaves in terms of patterns and flow. It behaves differently in different contexts, for instance in exclusion zones in and around the cell, where it supplies energy. This is an in-depth as well as extremely wide-ranging study, leaving no stone unturned.

■ A Hospitable Universe

Rodolfo Gambini with John Pullin

Imprint Academic 2018, 308 pp., £14.95, p/b.

Subtitled 'addressing ethical and spiritual concerns in light of recent scientific discoveries', this book is a tour de force in the scope of its treatment of physics, emergence, Darwinism, consciousness and the idea of a bio-friendly universe. The main thrust is to go beyond the implicitly nihilistic scientific philosophy described by Nietzsche in *Collapsing Cosmological Values*: a world lacking any purpose, the fracture between a mechanical and indifferent world and a human being that feels and suffers, and disbelief in any transcendent reality. The authors argue that contemporary science revises this picture with the anthropic principle and the emergent pattern in evolution towards complexity and consciousness, as initially proposed by Teilhard de Chardin; for them this also includes top-down causation. The picture they develop is a form of religious naturalism with consciousness still defined as a biological phenomenon. In common with other emergentists they make no mention of the evidence that consciousness might be more than a biological phenomenon, which allows them to maintain non-reductive physicalism – the third element of Nietzsche's nihilism is retained – disbelief in any transcendent reality. The only immortality they envisage is the immortality of past events and deeds in the mind of God.

■ Are There Limits to Science?

Edited by Gillian Straine

Cambridge Scholars 2017, 185 pp., £61.99, p/b.

Based on the 2016 conference of the Science and Religion Forum, this volume effectively discusses the limits of naturalism in a number of fields, questioning the monopoly of knowledge implied in scientism and opening up other ways of knowing. The reader is introduced to expansive or non-reductive naturalism, which still denies the possible existence of a supernatural realm while trying to maintain the integrity of values and include God. The second paper is a criticism of the first, and proposes a different view, namely the holistic dualism of Charles Taliaferro. A paper on divine action explores the 'causal joint' in some detail, and is followed by what I found the most interesting contribution on emotion, reason and the limits of science by Donovan Schaefer. He refers to the guiding emotionality of our bodies and minds, reminding us of Hume's subordination of reason to what he called calm passion and, like Mary Midgley, putting forward the idea that knowledge

production is emotionally saturated – as is the defence of scientific and philosophical positions. He also discusses William James and affect theory, commenting that science, strictly speaking, is defined a form of systematic knowledge rather than being confined to natural science. There are many other interesting papers on related topics, including physics, Thales, neuroscience and transhumanism – a stimulating volume.

■ Other Minds – The Octopus and the Evolution of Intelligent Life

Peter Godfrey-Smith

William Collins 2017, 255 pp., £20, p/b.

The author brings together two of his passions in this fascinating book, namely history of science and scuba diving, combining philosophical rigour with empathy towards his aquatic subjects, with whom he spent many spellbinding hours. His starting point is that life and sentience developed in the oceans, and he focuses specifically on cephalopods – mainly cuttlefish and octopuses. It is interesting to discover that the octopus has 500 million neurons and that its tentacles are partly a law unto themselves. He speculates about the various evolutionary pathways of the development of subjective experience and consciousness, a differentiation from what he calls white noise. In developing his view, he draws on the work of Vygotsky on inner speech and Bernard Baars' theory of a global workspace. Interestingly, octopuses and the like have very short lives, four years at most, which sets the author off on another interesting train of thought about compressed experience. As most of his observations took place 50 feet below the surface in Octopolis, Godfrey-Smith ends with a plea to care for the oceans, citing the extraordinary success of a nearby marine reserve – we just need to work with nature rather than try to maximise extraction of natural resources, which is better all round in the long term.

MEDICINE-HEALTH

■ Soul Mind Body Science System

Dr and Master Zhi Ganf Sha and Dr Rulin Xiu

BenBella Books 2014, 280 pp., \$24.95, h/b.

This is an unusual book as a combination of Taoism, science, spirituality and healing, written by a doctor who is also a spiritual teacher giving many workshops, and a physicist. As such, it contains many practices along with explanations and makes special claims about the status of

the lead author which the reader is not really in a position to assess. The aim is to present a grand unification theory going beyond physics, and involving the equation S (soul, heart, mind) + E (energy) + M (matter) = 1 in the sense that they need to be unified. This corresponds to the Chinese terms *jing* as matter, *shen* as soul, heart and mind, and *qi* as energy, and the order in the equation represents the direction of influence of one on the other. The 1 is the Tao as the Source and Goal of existence. The key themes throughout are purification, gratitude, love, forgiveness and service. Many of the practices are requests or invocations using what the authors call body power, soul power, mind power and sound power, the significance of this last being that we become what we chant (although it is difficult to follow these practices without guidance). It is clear from the group feedback that these processes are powerfully healing and spiritually significant in terms of the welfare of the planet and its future - the embodiment of divine qualities is perhaps the most important inner work we can aspire to in terms of raising our frequency and refining our vibration. The book contains many practices in this respect.

■ The Logic of Madness

Matthew Blakeway

Meyer LeBoeuf 2016, 252 pp.,
£17.50, h/b.

This book follows up the author's earlier study entitled *The Logic of Self-Destruction* by presenting a new theory of mental illness based on the same fundamental mathematical and logical approach that sees the human being as a computational and self-referencing machine that goal-seeks specific emotional outcomes. Even if one does not agree with this initial starting point, the logic leads to some very interesting and important insights, including that madness is in fact rational and logical. We have the capacity to out-think our emotions and biology but can end up in complex, circular and compound self-destructive loops - here lies madness. In this context, an emotion is defined as a biological mechanism that causes an action state. The author makes his case very thoroughly, discussing the history of psychiatric classifications, causes and cures before looking in detail at compulsions, impulsions and delusions. The overall implication is a move away from pharmacology towards a new understanding of emotions, their causes and our responses. The book is rigorous, technical and demanding, and deserves to be widely read and debated by mental health professionals looking for new models and directions.

PHILOSOPHY-SPIRITUALITY

■ A New Stoicism

Lawrence C. Becker

Princeton University Press 2017 (first edition 1998), 263 pp., £18.95, p/b.

There has been quite a revival of Stoicism in the last few years as a form of ethical naturalism. The author asks the interesting question of what Stoic ethics would look like in the light of modern philosophy and science, which this book proceeds to answer by restating and defending the main tenets of Stoicism. A key theme is the inseparability of virtue and happiness (*eudaimonia* or flourishing). He shows how stoic ethics can get from the descriptive "is" to the moral "ought" with virtue as a controlling hypothetical imperative and morality as a system of such imperatives. The exposition is systematic and quite technical, with a commentary at the end of each major chapter. As one might expect from ethical naturalism, the author buys into the materialistic and outer perspective of science depicting an indifferent universe in which we are an insignificant chance occurrence. This ignores the corresponding inner perspective experienced by many mystics and spiritual practitioners and noted by Pascal with his characterisation of humans as thinking reeds (*roseau pensant*). The author also makes no mention of the rise of the character movement drawing on virtue ethics. However, within its own parameters, this is a rigorous and sophisticated statement.

■ How to Die

Seneca, edited, translated and introduced by James S. Romm

Princeton University Press 2018,
230 pp., £14.95, h/b.

Seneca (4 BC to 65 AD) speaks down the ages with his perennial reflections on the human condition and the inevitability of death. This is the first book to gather his reflections on this theme into one volume, and consists largely of letters. The main sections address preparing yourself, having no fear or regrets, setting yourself free and becoming part of the whole. In some contexts, he refers to death as the departure of the soul from the body, but in others there is a hint of oblivion on either side of birth and death with a sobering reflection on the brevity of life. For Seneca, quality of life is much more important than length, over which we have little say. I learned for the first time that Nero obliged some of his enemies, and eventually Seneca himself, to commit suicide rather than being executed, and there is a noble reflection on the death of

Cato in this respect. He encourages us to think of each day as an individual life and warns against prolonging death rather than life. He also identifies the irony of forgetting our mortality while we are busy with other things and are surprised when death comes into view, even though it has always been unavoidable. As Seneca recommends, we would do well to meditate on death in the context of leading a life of real quality.

■ Meditations on Self-Discipline and Failure

William Ferraioli

O Books 2018, 170 pp., £12.99, p/b.

Here is another book from a neo-Stoic perspective, partly as an antidote to self-help books and written in the spirit of Seneca, Epictetus and Marcus Aurelius. It is evident that the author has fully absorbed the Stoic tradition and now presents it with a modern voice that nevertheless echoes the Stoic view. The book has 30 chapters, none of which have titles, but they all broken down into single paragraphs. Readers are urged to be dispassionate not only about others, but also about themselves, remembering that we alone are in charge of ourselves and can decide what kind of person we want to be. On the positive side, we are encouraged to show appreciation and gratitude while retaining a broad and independent perspective on life and people. The result is a bracing and valuable practical wisdom.

■ A Matter of Life and Death

Rosalind Bradley

Jessica Kingsley 2016, 230 pp.,
£9.99, p/b.

With a foreword by Archbishop Desmond Tutu, this is a collection of 60 reflections on death and its implications, divided into five parts: personal encounters with death, the way in which death brings wisdom, working closely with death, death and the circle of life, and death as sacred. A huge range of views emerges from these pages, with some very challenging personal stories involving the loss of children but conveying a sense of dignity and compassion. One respondent remarked that she did not live in the past, but the past lived in her. Loving and being loved is a central theme, as is the necessity to realise impermanence and let go when the time comes. Whatever the background, there is an emphasis on living the good life while we are here. Benedict reminds us to live every day with death constantly before the eye, while my friend Therese Schroeder-Sheker reflects that we die multiple times at different levels of being during one lifetime and that death is core to the human-making curriculum, preparing us for new life in a new form. A powerful read.

■ Sufism

Alexander Knysh

Princeton University Press 2017,
389 pp., £24.95, h/b.

This is a new and seminal history of Islamic mysticism dealing with both the ascetic and mystical elements related to practice and teachings - also from the point of view of both insiders and outsiders and covering the community aspect, institutions and leaders. It provides an accessible and authoritative account of Sufism stemming partly from the author's work on a major encyclopaedia. He takes a holistic approach in refusing to separate ascetic and mystical elements that necessarily go hand in hand, and presents his analysis historically and impartially. Individual chapters cover the history, definitions, discourses, practices and recent developments. At the end of his chapter on definitions, he neatly summarises the constants of Sufism, with an emphasis on its transformative potential and spiritual lineage. The chapter drawing on common elements in Hellenism is of special interest, emphasising the important role of Plotinus. The interplay between internal and external perspectives proves important, and in his conclusion the author quotes Patricia Crone, who remarked that people see things from their own perspective and believe their own propaganda because they cannot see it for what it is: "the bias is invisible because the angle which produces it is felt as normal." He also notes Al Ghazali, who argued that the rational investigation of the world rarely if ever brings happiness and tranquillity to the investigator, whereas the knowledge and insight offered by ascetic-mystical convictions and practices do. The only significant omission for me from this fine work was Hazrat Inayat Khan, whose work and school also continues today.

■ The Way of the Lover

Ross Heaven

Moon Books (John Hunt) 2017,
210 pp., £14.99, p/b.

Subtitled 'Sufism, Shamanism and the Spiritual Art of Love', this book takes the reader on a profound journey drawing on a wide variety of sources to deepen our capacity to love, a central theme in Sufism and in its mystics such as Rumi. The author uses the medicine wheel with its four directions as a map as we journey towards the centre, learning in the process to respond from love rather than react from fear - he has a very helpful chart in this respect (p. 61). In the process of seeking the beloved, readers answer various questions as they move through and play various roles. The lessons are nicely illustrated in the number of parables. I particularly enjoyed the one about God's two-coloured hat and the

arguments between people who only see one side and therefore one colour. In the chapter on staying awake on the path, he advises us to keep death as an adviser to retain perspective on our lives. Love and fear also are present in our relationships, and it is here that a shared vision can be critical. At the end, after a beautiful story about the wise king, the author advises us not only to throw away books and start a revolution, but also to burn the very book we have just read!

■ Religion

Christian Smith

Princeton 2017, 277 pp., £27.95, h/b.

Written by a leading sociologist, this fascinating and important book analyses what religion is, how it works and why it matters, using an approach combining critical theory with personalist social theory. At a time of resurgent fundamentalism as well as a trend towards universalism and spirituality, the author provides a useful working definition of religion as 'a complex of culturally prescribed practices, based on premises about the existence and nature of superhuman powers, whether personal or impersonal, which seek to help practitioners gain access to and communicate or align themselves with these powers, in hopes of realising human goods and avoiding things bad.' (p. 22) His definition purposely avoids terms such as supernatural and transcendent, even if these are perceived as real by practitioners. In this sense, he combines a social scientific account ('etic') with an insider perspective ('emic'), steering a middle course between objectivity and subjective interpretation.

Following this introduction, the five chapters discuss the nature of religion, causal powers produced by religion, the way religion works, why humans are religious and the future of religion. The analysis is combined with practical illustrations and gives readers a rich set of concepts, for instance a list of over 100 religious practices. In looking at causal powers, the author suggests various secondary products such as identity, community, meaning, expression and experience, social control and legitimacy - all this adds up to considerable social influence, also on the dark side. For practical purposes, these causal attributions are applied to the way that we interpret events, for instance in the light of prayer. It is precisely these superhuman attributions that are denied by secularists, and the author points out that there is a complex nexus of causes present. In any event, attribution is a cognitive interpretation open to dispute and subject to bias as well as a placebo effect and variety of 'cognitive lubricants'.

The chapter on why humans are religious discusses a broad typology, as well as providing some interesting survey material on what people pray about. For many, religious practices provide a perceived way of addressing human limitations and vulnerability. On this basis, his conclusion that religions will continue to be practised makes a great deal of sense, in spite of secular trends. The book sheds a great deal of light on religion, its workings and influence and as such should be widely read, not simply by scholars.

■ Religion vs. Science

Elaine Howard Ecklund and
Christopher P. Scheitle

Oxford 2018, 224 pp., £19.99, h/b.

Elaine Ecklund is a sociologist who has made one of the most extensive studies of the relationship between science and religion, and is the author of an earlier book on what scientists really think - this new volume gives the perspective of religious people, and challenges a lot of assumptions based on a comprehensive survey. She argues that the two fundamental shaping issues for religious Americans relate to science and the existence or activity of God (for instance in relation to miracles), and science and the sacred. The findings move us beyond stereotypes and myths, while individual chapters are devoted to propositions such as religious people not liking science and scientists, all being young earth creationists and climate deniers, or against scientific technology. With a wealth of charts and statistics, the authors distinguish between myth and the reality of their findings, drawing out certain lessons. One interesting finding is that 22% of atheist elite university scientists and 27% of agnostics in the same category consider themselves as spiritual people. The climate change data showed a relatively even split between those taking the view that human actions are significant and those who aver that humans are only partially responsible; interestingly, only 11% thought that the climate was changing but not because of human actions. The final chapter summarises the findings on which future discussions of these topics should be based, while the appendices describe the interview guide and survey instrument. This is certainly a landmark study that should be widely read.

■ A 21st Century Debate on Science and Religion

Edited by Shiva Khalili, Fraser Watts
and Harris Wiseman

Cambridge Scholars 2017, 207 pp.,
£61.99, h/b.

The twelve contributions in this volume come from a Congress held in Vienna in 2015 within a framework

of the search for truth from different perspectives in a world of religious pluralism. The contributors are all distinguished in their fields are working within overlapping areas characterised at least by common questions if not by common assumptions - fundamental disagreements often arise from these different assumptions, also within religion at the liberal and conservative ends. One of the interesting themes emerging is that of religious or sacred naturalism, discussed in an excellent contribution by Mikael Stenmark, who stakes out its limits with its impersonal approach. This is taken up in the following chapter which also characterises this position as post-supernatural. This is a culturally significant term as many scholars working at the science/religion interface have little or no knowledge of parapsychology or even mysticism with the emphasis on the epistemological and ontological significance of experience. This raises the question of whether science in its current naturalistic form should constitute the underlying metanarrative for the field. The authors offer a thoughtful and constructive engagement with these questions and the nature of human personhood.

■ Enriching our Vision of Reality

Alister McGrath

Templeton Press 2017, 215 pp., \$14.95, p/b.

Alister McGrath is the Andreas Idreos Professor of Science and Religion at Oxford, and eminently suited to the post with Oxford doctorates in both natural science and Christian theology. In this eloquent and sophisticated book, he sets the scene by discussing the general notions of intelligibility and coherence, quoting Einstein to the effect that science can only teach us how facts are related to each other, and that humans need more than a purely rationalist conception of existence. McGrath suggests that the enrichment of his title should come about through integrating multiple levels of reality and through an interweaving of scientific and theological narratives. In the second part, he discusses the contributions of chemist Charles Coulson, theologian Thomas Torrance and physicist and priest Sir John Polkinghorne, and it is interesting to see what he gleaned from each of them.

This leads into six parallel conversations between theology and science looking at theories and doctrines as ways of seeing reality, the legitimacy of faith in terms of proof, justification and intelligibility, analogies and models as representations of a complex reality, the status of faith in Darwin, and finally human identity and natural theology. These open up

rich seams of discussion, all of which move beyond the conflict model to seek constructive engagement. As examples, McGrath addresses the relationship between evidence and rationality, pointing out that, in both science and theology, we use inference and judgement, and that theory and observation are in fact entangled. The author certainly achieves his goal of demonstrating the intelligibility and coherence of his view, which he thinks is best argued for by theologically informed scientists, although scientifically informed theologians also have an important role to play. It is at this level the new atheists need to engage rather than setting up simplistic straw men in their imaginations.

■ Reflections on the Man, the Mind and the Mission

Edited by Nalini Bikkina and Rositta Joseph Valiyamattam

DK Printworld 2018, 360 pp., no price given.

This volume is a Festschrift on the occasion of Prof K. Ramakrishna Rao's 85th birthday – Rao has had an extraordinary and distinguished career in philosophy, psychology and parapsychology, as well as Gandhian studies, yoga, politics and education. The book covers all these fields, outlining his very considerable body of work and theoretical contributions. As such, it serves as an excellent introduction, and reprints one of my reviews from this journal. His bibliography of books and papers runs to 24 pages from 1955 to 2017. Rao himself contributes a memoir recalling key episodes in his life, and it is interesting to learn how sometimes conflicting opportunities came up and what he did to resolve these situations, including being called back from the US, where he was working with JB Rhine, to become Vice Chancellor of Andhra University – one also learns about his experience of the politics of parapsychology in relation to university orthodoxy. In his concluding thoughts, he comes across as more active than contemplative, making plans for next year's 150th birth anniversary of Mahatma Gandhi and a new inspirational centre. And as an educator, he is concerned to help foster a mindset of truth, nonviolence and altruism alongside our prodigious technological development.

■ Disagreeing Virtuously

Olli-Pekka Vainio

Princeton 2017, 207 pp., £24.99, p/b.

Written by a theologian and therefore with a focus on religious conflict in an interdisciplinary perspective, this wide-ranging book contains an important message for our time in its title, namely that there are constructive ways of

disagreeing that can enhance our shared humanity. The overall aim of the book is to 'understand the ways in which our thinking, or more precisely our cognitive setup, affects the reasoning, judgements, and ultimately our behaviour in the state of disagreement' on the basis that the dynamics of disagreement are relatively similar. The first part of the book gives a historical background from Plato to contemporary voices, moving on to the nature of human rationality and decision-making, then the contribution of philosophy, and finally how we can disagree virtuously.

The author distinguishes external limitations from internal, which he then divides into personal and panhuman, the latter looking at the nature of cognitive processes and biases. This section was of particular interest in identifying ten forms of bias, including confirmation bias - with which many people are already familiar - but also coherency bias whereby we explain anomalous phenomena in ways that balance with our previous beliefs, and belief perseverance bias where we tend to cling to what we already know. Understanding the psychology, which also includes treatment of Iain McGilchrist's work, is important for self-awareness of one's own cognitive limitations. Among the virtues of disagreement are open-mindedness, humility, courage and tolerance, with a usefully nuanced treatment of this last quality which may not in all circumstances be a virtue. This is an excellent general primer.

■ Seeking Wisdom – A Spiritual Manifesto

Larry Culliford (SMN)

University of Buckingham Press 2018, 124 pp., £7.99, p/b.

Larry is a writer, physician and psychiatrist who was also one of the founding members of the Spirituality and Psychiatry special interest group in the Royal College of Psychiatrists. In our time of disorientation and disconnection, he turns his attention to the tension between worldly and spiritual values within an overall developmental framework. The first part of this inspiring book spells out the rationale and a path towards spiritual maturity, also including valuable ideas on loss and growth, left and right hemisphere thinking, and the search for the true self. The overall direction is from conformity to independence and responsibility, leading ultimately to a compassionate and universal outlook. The second part presents a wisdom view on politics, religion, education, mental health, capitalism and art, with many valuable insights. The third part offers advice on spiritual practices and the realisation, influenced by Thomas Merton,

that we are already one. Individually, this means engaging with the challenges of living, growing, healing and ultimately surrendering all our attachments 'while experiencing oneself as seamlessly connected to the whole, to everyone else, to nature and the fullness of creation.' The book ends with an appeal for readers to take a personal stock of priorities and values and to become committed wisdom seekers while living a balanced, responsible and compassionate life. To the extent that we respond, we are contributing to co-creating a better future for ourselves and the world. In that sense, the book is a significant source of hope at a time when it is easy to despair.

■ Incarnation – A New Evolutionary Threshold

Diarmuid O'Murchu

Orbis Books 2017, 240 pp., £20.99, p/b.

Diarmuid O'Murchu is a forward-thinking Catholic priest and social psychologist, who in this book elaborates a new concept of the Christian idea of incarnation as a progressive universal embodiment of Spirit in the course of evolution. The audience he has in mind is that of spiritual seekers and elders who need a more adult and discerning engagement with faith and who live in a relational manner. In this wide sense, Gaia also represents a form of embodiment of our earthiness. A series of chapters unfolds this evolutionary vision that transcends the patriarchal world view in what the author calls empowering relationality. He sees life and death as inherently connected, and questions the myth of suffering, preferring to emphasise Jesus's life rather than death. Christianity was burdened with the political agenda of Constantine aiming for conformity, control and domination, and for a long time - and even now among evangelicals - insisted on its uniqueness. The author places an emphasis on co-creation and therefore on collaboration with God rather than salvific intervention. He also highlights the turn towards experience and interiority over the last 40 years and provides his own guidelines for a more mature approach to faith - well worth reading.

■ Reincarnation – A Christian Perspective

Friedrich Rittelmeyer

Floris Books 2018 (1988), 124 pp., £9.99, p/b.

Friedrich Rittelmeyer (1872-1938) was a Lutheran pastor until he founded the Christian Community, based on the teachings of Rudolf Steiner, in 1922. This book was first published in English in 1933 and is a good philosophical introduction to the topic, and particularly

to Steiner's understanding. The three main chapters cover reincarnation in the light of thought, religion and ethics, elucidating the logic of the concept. The author notes the German lineage with Lessing, Goethe and Herder before coming to Steiner and his own research in the topic where he argues that reincarnation is the most satisfying solution to his quest. He is very clear that reincarnation is not a Christian concept as such, but he feels that it is now necessary to incorporate it. It explains the context of life due to more than chance and gives us a more direct investment in the future in terms of a common destiny. Perhaps most importantly, Steiner's understanding is one of evolutionary ascent rather than eternal return, which makes it more congenial to the Western mind.

■ Wisdom from the Christian Mystics

David Torkington

Circle Books (John Hunt) 2017, 351 pp., £15.99, p/b.

The purpose of this profound work is to put authentic mystical theology back into centre stage and reverse the condemnation of Quietism dating back to 1687. The key is the primacy of love and selflessness as demonstrated by St Francis of Assisi where it is very important to remain open to the inflow of divine love to infuse the whole being. The author argues that without mystical theology we are just left with laws, regulations and rituals - the spirit has been evacuated and must now be re-embodied. It is hard to reach the depths the prayer without this training and mystical theology, all the more central for the spiritual life of priests. The author has been lecturing on the topic in Rome since the late 1970s and his plea is that we must return to 'that awe-inspiring and all-consuming daily mystical spirituality that was lived by the first Christian disciples, learned firstly from living it with Jesus himself.' (p. 337) The whole life of the mystical disciple is centred on God and service, and not on the self, which goes against the modern trend of using meditation for self-improvement. The author criticises Dionysius for originating the emphasis on experience and degrees of mystical awareness, rather than dying to the self and navigating through the dark night as a means of purification. Reason is not enough; only love can consummate the mystical marriage. There are also some helpful practical guidelines at the end.

■ The Spirit of Simplicity

Dom Jean-Baptiste Chautard, translated and edited by Thomas Merton

Ave Maria Press 2017, 139 pp., £12.99, p/b.

This classic book about Cistercian spirituality was edited and translated by Thomas Merton in 1948. The first part is by the French Abbot Jean-Baptiste Chautard and the second consists of texts by St Bernard of Clairvaux on interior simplicity, with a commentary by Merton. Right from the beginning the monk is defined as a man absorbed in one exclusive ideal: union with God. With this in mind, simplicity consists of stripping away the superfluous at every level and observing the Rule of St Benedict, which is discussed in considerable detail. Between the two parts is a series of black-and-white photographs of various abbeys. For St Bernard, we are already made in the image of God, and the mystical path consists of developing into the full likeness corresponding to the very depths of the human soul. This involves sincerity and humility applied to the mind, heart and will - and forbearance in a community setting that also entails obedience as a form of simplicity applied to the will. St Bernard is very clear that knowledge does not enlighten our minds but can lead to love that gives us a concrete experience of God (p. 86). Merton explains that we cannot become one substance with God, but that a union of wills makes us one spirit with the God of intimate love. This is a powerful contemplative guide and a favourite text of many leading Catholics, including Pope Benedict XVI.

■ Is Your God Big Enough, Close Enough, You Enough?

Paul R. Smith, foreword by Richard Rohr, afterword by Ken Wilber

Paragon House 2017, 408 pp., \$24.95, p/b.

Subtitled 'Jesus and the three faces of God', this book owes its structure to the work of Ken Wilber in the study of integral theory in Christianity and reinterprets the Trinity in terms of the first, second and third person dimensions of reality itself, as reflected in the title. These aspects are explored in the three parts of the book where God is first beyond, then beside, then within. The transcendent God is infinite being in love-drenched radiance, the I AM of Moses; the son becomes the cosmic Christ, and the spirit infinite consciousness. The second part is personal and relational, even intimate. The third is immanent, and explores various dimensions of awakened consciousness, also in the Bible as well as its results. This section proposes four stages of becoming the Real You: becoming somebody, then

nobody (emptiness), then beginning to embody God and finally non-dually everybody, realising that the transcendent God is also the deepest self, as mystics like Meister Eckhart have long affirmed. This is a systematic treatment that will appeal to Christians interested in the transpersonal.

■ Svavikasuktra - the Roots of the Bhagavad Gita, Vol 1(b), Vol 2

Gerard Kuiken
(www.gdckuiken.com)

Otam Books 2018, 475 and 228 pp, p/b.

Although originally trained in thermodynamics, the author has devoted many years to the study of the Gita and has published two previous books on it. These new ones are a valuable scholarly resource to the specialist. The text is set out in great detail, so that readers can see how the detail makes up the elements of the translation, and thus gain a better understanding of the terms. Yoga is characterised as striving for oneness by means of many different paths and modes including action, knowledge, self restraint, contemplation of form and renunciation. The second part of the first book is a Sanskrit-English dictionary that also serves as a glossary of terms such as *ananda* and *guna*. Volume 2 examines the dating of the text, the frequency of key terms and devotes a chapter to scholarly research on the origins of the Gita, going back as far as von Humboldt in 1826. The text is then reproduced in Dutch and English with even more grammatical detail. A further fascinating outcome of this study is that the caste system was only introduced 70 generations ago and that there is no justification of it from the original Gita. The attentive reader will certainly find their knowledge of the text and its background greatly deepened by these works.

■ Human by Design

Gregg Braden

Hay House 2017, 295 pp., \$25.99, h/b.

The message of this book is encapsulated in its subtitle - from evolution by chance to transformation by choice, going beyond the classic Darwinian story on the basis of new DNA evidence suggesting that we did not descend from Neanderthals and that a rare DNA fusion sets us apart from other primates. The author explains this new human story of life with a purpose and shows how it can be awakened individually and collectively as an intelligent form of life. He discusses the brain in the heart, how we are wired for connection and cooperation in terms of intuition, empathy and compassion and also potentially for a long biological

life – he explains the science of telomeres and cites an extraordinary case involving Li-Ching-Yuen, who appears to have been born in 1677 and died in 1933, as also documented at the time by the New York Times. The author encourages readers to take the initiative towards responsibility and transformation, informing us that we do in fact already have solutions to our greatest challenges, even if these are not being implemented. We all have the capacity to rethink our baseline beliefs, and this inspiring book helps us do so.

■ Face to Face with Spirit

Esi Cakmakcioglu

Balboa Press 2017, 210 pp., \$17.99, p/b.

This is the engaging autobiography of an award-winning architect and urban designer who found her life path drawing her into working as a spiritual medium and artist, healer and clinical hypnotherapist. 30 years ago, she received a powerful message purporting to come from Avicenna, an 11th century scholar and poet, who encouraged her to put Spirit first and explained that our difficulties are in fact lessons. She relates many important episodes and illustrates contacts with corresponding drawings and their resemblance to the people they are meant to represent. Another communication defines death as a door into the light and there is a powerful encounter with a guide to a child about to be born who it is claimed had been a crown prince in a previous life. This leads to further explorations of reincarnation and intergenerational patterns that may require fundamental questioning in order to change attitude. Overall, the message is to take responsibility and trust life.

■ Heart of Oneness

Jennifer Kavanagh (SMN)

Christian Alternative (John Hunt) 2018, 71 pp., £6.99, p/b.

This reflective 'little book of connection' enables readers to stand back from the violent images portrayed on our screens every day and the realisation that our divided world is full of poverty, inequality and injustice. At the same time, heroic acts of altruism are also going on, reflecting the paradoxical nature of the human condition and our difficulties in living together. The author highlights examples of mutuality and interconnectedness from science, psychology and religion – what she calls the oneness at the heart of existence – and gives guidance on how we can enact a way of life consistent with these insights. Ultimately, the mystic experiences a unity of subject and object, but it is still a challenge to live out this insight in everyday life.

PSYCHOLOGY-CONSCIOUSNESS STUDIES

■ BlindSpots

Christian de Quincey

Park Street Press 2015, 335 pp., \$19.95, p/b.

Subtitled '21 good reasons to think before you talk', this is popular philosophy at its best, questioning clichés and generalities such as we create our reality, time is an illusion, everything is energy or information, humans are special, and everything is determined by fate. Written from a process angle with a deep knowledge of consciousness studies, the book contains a detailed analysis of blind spots with corresponding 'depth alerts', some in the form of dialogues. The author introduces a number of important distinctions, such as the philosophical and psychological meanings of consciousness. He also has a very interesting perspective on free will, arguing that consciousness is always the subject that knows and that choice is the injection of order into otherwise random processes by creatively selecting from available options (p. 271). It was also an illuminating moment to read Herbert Simon's assertion that information consumes attention and that a wealth of information creates a poverty of attention – as we are discovering to our cost.

The epilogue questions the assumption that human ingenuity and technology will save us, referring to the author's conversation with his friend Peter Russell about the race between collective transformation and systemic collapse. Pete's view is that we are heading for systemic collapse, a scenario also considered 50% likely by Lord Rees, past President of the Royal Society. In the absence of a collective transformation of consciousness, business as usual will probably assure this, which makes it all the more urgent and important to be part of this waking up process. The short chapters make it possible to dip in and out of the book, and readers will invariably find their assumptions and habitual thought patterns probed and questioned in a highly constructive manner. Strongly recommended as a contribution to independent and clear thinking.

■ I am Not a Brain

Markus Gabriel

Polity 2018, 244 pp., £25, h/b.

Markus Gabriel is still in his late 30s, and has since 2009 held the chair of epistemology in the University of Bonn. An indication of the author's position is

his phrase describing the human being as a minded animal with a plurality of self conceptions. The book is a systematic challenge to neurocentrism, the idea that the self is identical with the brain. He is critical of any system that posits the existence of reality as a whole and questions naturalistic metaphysics and the notion of the causal closure of the natural world. In doing so he defends a philosophy of mind and the scepticism of Raymond Tallis about neuromania and Darwinitis. His approach is neo-existentialist asserting that the human mind makes an image of itself and thereby engenders a multiplicity of mental realities that cannot simply be reduced to biological processes.

The book draws on a wide range of sources to discuss what is at stake in the philosophy of mind, consciousness, self-consciousness, the nature of the self and freedom. Like Gilbert Ryle, he is dismissive of any dualistic idea of the soul, also praising Kant's *Dreams of a Spirit Seer* without even mentioning that it is a critique of Swedenborg and characterising his experience as a form of superstitious belief. This indicates the limit of his treatment, since, like most professional philosophers, he makes no mention of evidence for an independent spiritual reality. Having said this, his critiques of more limited materialistic positions and various forms of determinism are well worth reading, as is his defence of freedom and his important distinction between causes and reasons with ends in mind. In doing this, he advocates spiritual freedom against reductionist and eliminativist views 'that would like to persuade us that we have neither minds in any demanding sense nor freedom.' He sees the current neurocentric ideology as a modern attempt by the human being to get rid of itself.

■ Thinking Outside the Brain Box

Arie Bos

Floris Books 2017, 256 pp., £20, p/b.

Arie Bos is a physician who now teaches philosophy of science and neurophilosophy at the University of Utrecht. In this wide-ranging book about why humans are not biological computers, he questions what he calls neurodeterminism and the materialistic assumption that brains produce consciousness. He argues in the first part that it is not his brain that thinks, also pointing out that our experience shapes our neural circuits. For him, while the body makes a decisive contribution to consciousness, consciousness exists in the whole organism. Taking things further, he considers the implications of near death experiences, drawing on the work of Sam Parnia to suggest that consciousness in

this case is not supported by the physical brain - there are in fact other lines of argument that could have been brought in at this stage, as the NDE can only take you so far; it is not in itself a proof of survival. The second part is an argument for the integrity of the self as thinker, which fits in with his overall view that scientific materialism is a limited approach to reality and raises significant ethical problems by removing free will; "it has nothing to offer about the part of reality that has significance and value", while tending towards reification. He sees the way forward through bringing in Merleau-Ponty's phenomenological approach while agreeing with Iain McGilchrist that we need to bring the two hemispheres back into balance.

■ Is Intelligence an Algorithm?

Antoniin Tuynman

iff Books (John Hunt) 2018, 168 pp., £11.99, p/b.

The Dutch author of this penetrating book has a doctorate in chemistry and works as a patent examiner, a job that requires considerable analytical acumen, also demonstrated in this work, which builds on the work of Ben Goertzel. It begins with a fascinating presentation of what he calls nature's meta-system transition algorithm for intelligence consisting of the seven steps of being, polarity, relationship, emergence, recombination, distinction and sublimation. He shows how this operates in the evolutionary process tending as it does towards greater consciousness and complexity. He then applies this to human cognition and recognition, moving on to detailed discussions of reasoning and problem-solving, followed by a useful template for writing and organising thought. The next two chapters are devoted to the intelligence of emotions and the acquisition of emotional intelligence. He then moves on to artificial intelligence and the possibility of artificial consciousness as a form of self-monitoring, although I was not persuaded of its equivalence with what we ourselves experience as consciousness. He also proposes a sophisticated and technical architecture of a webmind. If the treatment up to this point has been largely sequential, the final chapter discusses intuition as a way of knowing, and it is here that he could have related to the work of Iain McGilchrist, who deals in detail with the relationship between complementary ways of knowing. Anyone interested in probing the deeper nature of intelligence will find much food for thought.

■ The Power of Eight

Lynne McTaggart

Hay House 2017, 299 pp., £12.99, p/b.

Lynne is well-known for her work on field effects and intention - here she extends this to bring in the power of connection exhibited in small groups directing their healing intention either to members of the group, or to a third party or larger issue. The results are quite extraordinary in terms of the many miraculous effects cited and have far-reaching implications for our understanding of consciousness and its apparent capacity to create an entangled psychic Internet. The book draws on the work of many experimenters as well as reporting Lynne's own work with a number of prominent scientists who ensured that the protocols were as rigorous as possible. Perhaps the most fascinating finding is the rebound or mirror effect, whereby participants enter a unified mental state and themselves benefit from the healing intention they are sending out. Interestingly, some experiments, for instance with water, showed no mirror effect, but the most powerful ones were the peace intention experiments, which also seem to have had a significant if complex impact. The dynamic appears to be one of giving and receiving.

The overall message of this inspiring study is that our combined mental intentions are far more powerful than we realise, which can give us a sense of hope in a world that seems to be spiralling out of control as it follows the manipulative power agenda of US neoconservatives. Just as the Silent Minute proved to be a crucial secret weapon in World War II, so we may now be called upon to mobilise our collective spiritual resources and align with invisible beings to head off this potentially apocalyptic scenario where people like John Bolton are really considering pre-emptive nuclear strikes as if this would not have a devastating planetary effect. This book effectively bridges science and spirituality and shows us a win-win way forward at a time when we need healing at many levels.

■ Arthur Balfour's Ghosts

Trevor Hamilton

Imprint Academic 2017, 336 pp., £14.95, p/b.

Subtitled 'an Edwardian elite and the riddle of the cross-correspondence automatic writings', this is a classic and landmark study of these extensive scripts involving some very distinguished Edwardian characters, including Arthur Balfour, who served as both Prime Minister and Foreign Secretary and was also President of the Society for Psychical Research. For those readers unfamiliar

with the cross-correspondences, they constitute over 3,000 scripts from different mediums over a 35-year period, and were the subject of an extensive study by HF Saltmarsh as early as 1938. The cast is very distinguished, both intellectually and culturally, and communicators included SPR pioneers FWH Myers, Edmund Gurney and Henry Sidgwick, all of whom were Fellows of Trinity College, Cambridge. The book provides an accessible treatment of the main themes in the scripts and a closer examination of some examples exhibiting paranormal cognition.

The first part covers the development of the cross-correspondences and describes the major characters. The second asks a number of searching questions: were the scripts unambiguous, consistent and meaningful? Did they exhibit paranormal cognition? Can we be sure that their cryptic nature was not a psychological artefact? Was the communication process interactive and did it signal intention on the part of the communicators? Were normal avenues for acquiring information ruled out? Were the correspondences tweaked by wishful thinking, over subtle interpretation or deliberate selection? And finally were the aims, intentions and long-term predictions of the communicators fulfilled? These are all thoroughly addressed. In the end, it comes down to a choice between the survival hypothesis and some form of super ESP, as with other evidence of this kind. The author explains the ideal and almost unattainable criteria laid down by CD Broad in 1925. He points out that it is in principle almost impossible to distinguish between the living agent psi hypothesis and the survival hypothesis in this or any other case. He argues, correctly in my view, that the best of the scripts stand up well against the Broad criteria. However, they can that best be only highly persuasive, as the reader's judgement has the last word. But readers should take the trouble to read the detail before summarily dismissing the evidence on a priori grounds - the book is a formidable achievement.

■ One Hundred Cases of Survival

Edited by A.T. Baird

White Crow Books, 2018, 217 pp., £14.95, p/b.

This book was first published in 1944, and remains a classic source of cases indicating survival after death, many of which are very difficult to explain using the super ESP hypothesis. The cases are classified under a number of headings such as dreams, apparitions, deathbed visions, cross correspondences, direct voice phenomena and materialisation. The original source is in many cases the

Proceedings of the Society for Psychical Research, but there are also cases from *Phantasms of the Living* published as early as 1886 in two volumes. Sceptics might say that these old cases cannot really be used as evidence, since we cannot check them first hand, but this argument impugns the integrity and competence of the distinguished authors. As readers will be aware, many prominent scientists have reached the conclusion that survival can indeed be established beyond reasonable doubt, but the very concept challenges materialistic physiology and philosophy. Personally, I would argue that the cumulative weight of the kind of evidence presented in this book provides the strongest prima facie case for survival. However, readers need to take the trouble to read such works.

■ The Survival of the Soul and its Evolution after Death

Pierre Emile Cornillier

White Crow Books 2018, 409 pp., £14.99, p/b.

This classic book was first published in 1921, and records sittings just before the First World War. Apparently, it was a favourite text of Dr Robert Crookall, who himself wrote many classic books on consciousness and survival. The artist author found that one of his subjects was a sensitive and was able to enter into a hypnotic state and communicate with those on the other side as well as exhibiting remarkable clairvoyant powers, in spite of somewhat frail health. Over 100 seances are recorded and a few are prophetic of the impending war. Many topics are covered, including the nature of the spirit world and its interaction with the physical world. Due to the detail surrounding the actual sessions, the reader has to plough through many pages in order to find some nuggets. However, there are some highly evidential episodes. At the end, the author addresses the status of what he has discovered, and argues in a pincer movement against scoffers or sceptics and their inability to provide a coherent explanation of these phenomena without invoking nonphysical intelligences.

■ Art of Living, Art of Dying

Carlo Leget

Jessica Kingsley 2017, 216 pp., £14.99, p/b.

The author of this important book is Professor of Care Ethics and Spiritual and Ethical Questions in Palliative Care at the University of Humanistic Studies in Utrecht. The main value of the book is the way in which it updates and translates the mediaeval *Ars Moriendi* into modern terms. Leget begins from the study of death and dying, usefully distinguishing

between fear as an emotion with a specific object, and anxiety that has no such specific object. Pointing out that we both are and have a body, he then explains how in the mediaeval tradition people on their deathbeds struggled with questions of faith, hope, love, patience and humility. He translates these into series of tensions, each of which correspond to a question. Thus knowing – believing leads to asking what one can hope for; remembering – forgetting to how one looks back on one's life; holding on – letting go to how to say goodbye; doing – undergoing to how to deal with suffering; and finally myself – the other to asking who I am and what I really want. The following chapters explore these questions in detail, with many touching and insightful examples, and the whole model is predicated on the author's idea of inner (open and reflective) space. The final two chapters discuss the model in a religious perspective and how best to work with it. This is very helpful as a guide to those working in palliative care, as well as to general readers with an interest in philosophy of death and dying. It would be useful if in the future edition the author also explored the work of Monika Renz on death as transition, which I have reviewed in these pages.

EDUCATION

■ The Case Against Education

Bryan Caplan

Princeton University Press 2018, 395 pp., £24.95, h/b.

Provocatively subtitled 'why the education system is a waste of time and money', this radical and subversive book makes the case for cutting rather than increasing education funding; it stimulates new lines of thinking on the topic, where most people instinctively feel we need more rather than less education. The author writes as an economist, distinguishing between the selfish and social benefits of education and arguing that while the case for the first is strong, the case for social benefits is dubious as so much time is expended on subjects not relevant to the workplace, the content which is forgotten by most people - and indeed bores the majority at the time. His central contention is that the main role of education is in fact signalling intelligence, work ethic or productivity, desire to please and conformity - good graduates exhibit these qualities desirable to employers and are rewarded accordingly, although over time the education premium declines while the ability premium increases.

The liberal ideal is well expressed in a quotation by a former president of Harvard when he says that education is a special, deeply political, almost

sacred civic activity conveying a set of convictions about how most nobly to live in the world. Caplan argues that this is seldom realised in the existing system, and even the best lecturers like Steven Pinker find the hall half empty after a few weeks. He defines himself as a cynical idealist - he is cynical about students, remarking that the vast majority are philistines and cannot be inspired with a lasting love of ideas about culture; in addition, most teachers are uninspiring. And education as a whole is overrated: 'academic success is a great way to get a good job, but a poor way to learn how to do a good job.' Rather than more education - although he does feel that we underrate the vocational - Caplan recommends that adulthood should start earlier. And he is surely right that surplus and debt-ridden graduates lead to credential inflation and what he calls malemployment where over-qualified people are working in coffee shops. This contrarian book requires us to re-examine our habitual assumptions about education.

■ Taught not Caught

Nicky Morgan

John Catt 2017, 138 pp., £12, p/b.

Nicky Morgan was Education Secretary between 2014 and 2016, and pioneered the UK government initiative introducing character education into English schools through grants and awards. She had a close connection with the Jubilee Centre for Character and Virtues at the University of Birmingham, and not only gave a named lecture at the University, but also opened the new University School, with its explicit emphasis on character. The title reflects the distinction between explicit and implicit character education where explicit education is given a space on the timetable. The book is excellent introductory overview of the field, drawing on her interaction with quite a number of schools as well as her experience of policy development.

The book begins by defining character and why values, virtues and personal traits matter. Politically, her background is one of nation conservatism with its implications for equality and social mobility. Much of the emphasis has been on so-called performance virtues such as grit and resilience, but it is important to stress that these need to be underpinned by moral virtues if they are not to be abused. The author draws on research showing how explicit character education is associated with enhanced attainment and academic achievement as well as laying the basis for future employability in terms of pupils' personal development. Results are best if character education is embedded in a whole school approach such as values-based schools, but this can be challenging in terms of demands on human resources.

Recent reports from the CBI emphasised the importance of attitudes and attributes for employers. There is also a chapter on assessing character, another on outside school activities and coverage of what pioneering schools are already doing. I hope that the book will be widely read within the educational community.

■ The Character Gap

Christian B. Miller

Oxford 2017, 276 pp., \$21.95, h/b.

Christian Miller is Professor of Philosophy at Wake Forest University and Director of The Character Project as well as author of two previous books on character. The title suggests the thesis that there is what he calls a character gap between a virtuous character and our actual character. He begins by a general discussion of character, virtue and vice and some reflections on why it is good to develop good character. Based on extensive psychological research and experiments, especially on helping, harming, lying and cheating, he concludes that most of us have neither well developed virtues nor corresponding vices - rather, we are a mixed bag somewhere in the middle, which is a realistic if slightly shocking observation in view of our general good opinion of ourselves and indeed of others.

A sobering case study comes from a man who suffered a heart attack in a supermarket - most people did nothing, and even stepped over the body; apparently, one of the reasons is that we do not want to get involved in order to avoid embarrassment. The situation was then replicated in a less traumatic way when an experimenter is going around with things dropping out of a torn bag, and only three of 20 adults did anything to help. Many readers will be familiar with the research of Stanley Milgram on the pressure of obedience, which leads to the general conclusion that most of us have characters which, when put to the test, lead us to obey people we see as legitimate authority figures. Interestingly, some experiments show, perhaps not surprisingly, that empathy leads to greater altruism. The second part of the book is summarised in a number of lessons demonstrating the ambiguity of our moral behaviour and mixed motivations: the same act of giving to charity can stem from a variety of motives.

If we are currently neither virtuous or vicious and wish to develop good character, is there anything we can do? The author addresses this in the third part of the book, covering what he calls less promising strategies, including doing nothing, virtue labelling and nudging towards desirable outcomes. He suggests a number of criteria including lasting

positive effects in promoting virtuous behaviour and motivation. More promising, in his view, are moral role models and emulation, selecting situations that encourage development of virtue, and overcoming the bystander effect illustrated in the supermarket incident above. The final chapter is more explicitly Christian, although many of the principles also apply in other religions. There is a great deal of character and moral teaching in the New Testament, along with the exemplar of Jesus himself. The author cites many studies showing the benefits of religious observation, focusing particularly on sanctification. Oddly enough, the word love does not appear in the index, when for me this summarises the essence of spirituality as exemplified in Christianity. Overall, the book is a sobering reflection on the ambivalent nature of human behaviour and motivation, made all the more authoritative by its research basis.

■ Knowing and Growing

Alan McLean

CCWB Press 2018, 158 pp., £10, p/b.

Alan McLean is a psychologist who has developed interesting and important tools for developing ourselves and others, which he summarises in this insightful and practical guide. The most important themes are the way we navigate life through emotions and the priority of identity over personality, which is discussed in some detail. The author argues that our identity shapes how we feel about ourselves and is the key to personal growth, while personality is a vehicle. The book explains how to balance meeting our own needs with those of others, and explores various personal styles and their implications. He makes an important distinction between personal autonomy characterised by making our mark, and the shared autonomy of being part of things, summarising this in what he calls the ring of preferences; indeed, there are many helpful diagrams throughout the book. Another interesting theme is styles of influence, balancing support with challenge. The chapter on growing insight defines personal insight as understanding ourselves within our relationships and knowing how others see us - he gives various tips for developing this as well as exploring our identity. Alan distils a lifetime of reflection and practice into this guide, which makes it essential reading for anyone interested in personal and professional development.

ECOLOGY-FUTURES STUDIES

■ Big Mind

Geoff Mulgan

Princeton 2018, 272 pp., £24.95, h/b.

Subtitled 'how collective intelligence can change the world', this is a very stimulating book by the founder of the think tank Demos and current chief executive of NESTA. The new context of digital technologies has enabled societies and organisations to think on a large scale, although these smart capabilities do not necessarily lead to smart results. Collective in this sense means a combination of human and machine with conscious orchestration addressed to both thinking and acting in the face of complex problems. The first part examines the nature of collective intelligence, while the second moves on to functional elements, infrastructures, organising principles and learning loops. The third part looks at a variety of contexts including meetings (a very useful chapter), problem-solving, the corporate context, universities, democratic assembly and how a society might think and create as a system in the light of knowledge commons. I found the three loops of intelligent learning useful, where the first loop adapts thought and action within an existing framework, the second creates new categories and models to think with, while the third involves rethinking how to think - this is similar to the three horizons model used in the International Futures Forum.

The final chapter considers collective wisdom and progress in consciousness given that collective intelligence seems to elicit a greater awareness of possibilities as well as of risk and precariousness. The author points out that the deeper political question raised in the book is whether we have potential for genuine progress in intelligence, not simply a rise in processing speeds or machine learning capabilities. For him, the critical issue is whether we can generate and make better choices, which is as much about wisdom as science, where wisdom 'entails transcending boundaries of self or identities and belonging' - this seems crucial to me, especially in an age of resurgent nationalism. Much depends on the generation of goodwill and trust - this is an engaging and important read.

■ Economics and the Common Good

Jean Tirole

Princeton University Press 2017, 576 pp., £24.95, h/b.

Jean Tirole teaches at the University of Toulouse, and was the winner of the 2014 Nobel Prize in Economics. In this wide-ranging and accessible book, he reaffirms the centrality of the common good as the basis for economics, which in Cambridge 100 years ago was studied as one of the moral sciences; by contrast, in the Scottish universities the subject was called political economy. The idea of the common good provides a check on the supremacy of the market economy according to neoliberal ideology. It also defines the role of the state in relation to the market, suggesting that the role of economics is to make the world better place. The author begins with an interesting thought experiment about the kind of social system one might like to live in if one did not know one's prospective social condition - from behind a veil of ignorance. The book is in five parts with 17 chapters, beginning with economics and society, which includes moral limits of the market. Then a discussion of the economist's profession in terms of the relationship to civil society, theoretical approaches - especially information theory - and analysis of motivation with respect to rationality.

The third part considers institutional frameworks for the economy, the role of the state, governance and social responsibility. The author then moves on to consider major macro economic challenges such as climate, the labour market (with a special emphasis on French issues, currently the focus of strike action), Europe and finance, especially since 2008. Then there is the industrial challenge, and in particular the implications of digitisation. In each case the analysis is hugely well-informed, with constructive policy proposals for moving forward. Significantly, he also addresses issues of trust, which are looming large in the Facebook debacle. Given human nature, new technology offers both opportunities and threats, which necessarily brings one back to the moral qualities embodied in individuals and institutions and their dedication or otherwise to the common good.

■ A Basic Income Handbook

Annie Miller (SMN)

Luath Press 2017, 303 pp., £12.99, p/b.

Listening as I do to France Culture on the road, I have heard more than one programme discussing the viability of a basic income scheme, especially in the light of the impending impact of automation on employment. Annie Miller is an economist who has been involved in the development of basic income schemes for more than 30 years, and here she provides a comprehensive handbook for both general and specialist readers. The other significant element of background is that she is a Quaker with a commitment to social justice. The starting point of the book is a new vision of society based on compassion, justice, trust and hope - the first two qualities are on the Scottish Parliamentary mace, in addition to wisdom and integrity. The idea behind basic income is that every adult receives a regular, unconditional, cash payment on an individual basis delivered automatically to one's personal account; importantly, this universality means that domestic work is implicitly recognised, and, at best, such schemes provide some degree of security and an encouragement for people to engage their creative capacities. They can also address inequality, if combined with vertical redistribution of wealth - our current system is a trickle up, and has been exacerbated by recent austerity measures disproportionately hitting the poor.

Any and every question that the reader might ask about basic income is raised and addressed in this comprehensive book. Basic income provides an alternative to the current Social Security system, which the author considers unfit for purpose. She goes through philosophical and political arguments, moving on to theory and evidence including such issues as eligibility, entitlement, conditionality and administration - she also gives examples of pilot schemes from around the world. The third part looks at the economic viability of basic income schemes, with a wealth of facts, figures and charts. This would inevitably involve restructuring the tax system, and there is an interesting chart showing total UK tax take as part of the background to discussion. Finally, the author looks at how we get from here to there in terms of policy options and implementation. In every case, there have to be objectives, assumptions and constraints. The comprehensive and balanced approach makes the book required reading for economists and policymakers, as well as interested general readers looking for an in-depth treatment of basic income, and also provides a way of transforming the values basis of our society in a more positive direction.

■ Women and Nature?

Edited by Douglas A. Vakoch and Sam Mickey

Earthscan 2018, 219 pp., £84, h/b, ebook £35.99.

Subtitled 'beyond the dualism in gender, body and environment', this volume updates the extensive thinking on eco-feminism since the term was coined by Françoise d'Eaubonne in 1974, questioning specifically the dualism between humans and nature, men and women, subject and object, and developing a more nuanced contextual view that also rejects essentialism. The trend is away from hierarchical domination towards harmonious interaction reflecting a pluralistic and holistic view. Moving away from domination also implies the development of an ethic of care. The essays are varied and treat a number of topics, including patriarchal influence on animal stories such as *The Wind in the Willows*, the use of sexualised bodies even in such contexts as organisations promoting the ethical treatment of animals, and the relationship between women's body image and physical activity in natural environments. One of the most interesting essays concerns the social construction of Western contemporary motherhood, with an analysis of so-called good and bad mothers, for instance in relation to Caesareans and breastfeeding. The volume succeeds in showing the relevance of eco-feminism to the interactions between genders, bodies and environment and reminds readers of the extent to which our understanding is culturally and socially constructed.

■ The Future

Nick Montfort

MIT Press 2018, 169 pp., £11.95, p/b.

This book is based around the idea of future-making defined as the act of imagining a particular future and consciously trying to contribute to it. The chapters look at many ways of engaging with the future, beginning with oracles, prophecy and divination then moving on to literary utopias, fairs that exhibit the future, the emergence of the web and Science Fiction. The main thrust of the book is to think seriously about how to build a better future rather than waiting to see what happens. A useful interdisciplinary discussion.

■ Primal Awareness

Rob Wildwood

Moon Books (John Hunt) 2018, 121 pp., £9.99, p/b.

Subtitled 'reconnecting with the spirits of nature', this book gives a history of our separation from nature and the world of spirit and what we can do to reconnect. The background context is shamanic primal awareness and the author describes 19 levels of separation that we have undergone, covering a surprisingly wide range of topics such as language, settlement and farming, possession and property, organised religion, patriarchy, bureaucracy, writing, Reformation, science and industrialisation, colonialism and capitalism, mechanistic thinking and modern technology. This is a long list and contains in each case guidance towards overcoming the particular form of separation. The author sees a transformative process underway and the first steps towards learning how to live more harmoniously with the environment and each other. However, one should remember that existing political and economic structures will not give up power, so we can only lead by personal example.

■ The View from Cassiopeia

J.M. Seeker (SMN)

FeedARead 2017, 141 pp., no price given.

The recent death of Henryk Skolimowski makes this engaging book written by an engineer and gardener all the more timely in articulating a simple and popular explanation of his worldview based on the centrality of light. The book is written as a series of letters reflecting on the state of the world and what we can do about it, at least in terms of sowing seeds. The title may be related to Voltaire's brilliant satire in *Zadig*, a giant who looks incredulously down at the follies of humanity in the process of destroying our life-support system. Voltaire also recommended at the end of *Candide* that the best thing we could do was to cultivate our gardens, advice which the author is certainly following himself. The topics covered are those that concern us all, including the climate of fear in which we live and the domination of mechanistic science, which he controversially argues has done more harm than good. In the later part of the book he explains how light is related to consciousness in a panpsychic view, and how light is also highly significant in physics and biology. Like Henryk, John sees us as cosmic beings in a friendly living universe, which he distinguishes from the mechanistic and religious views. His message can be summed up in his quotation from Teilhard that a change in seeing should result in a change of being.

GENERAL

■ The Tyranny of Metrics

Jerry Z. Muller

Princeton University Press 2018, 220 pp., £19.95, h/b.

This is a timely and important critique of the pervasive tendency to define success in terms of quantifying human performance, accountability and transparency, a trend that has invaded every profession. It makes clear that measuring has an important role, but focuses on 'the unintended negative consequences of trying to substitute standardised measures of performance for personal judgement based on experience.' Precisely this judgement based on experience is the hallmark of an accomplished professional in every field, but this obsession with measurement has not only diminished professional standing, but has also undermined trust and demoralised practitioners. As an academic, the author has his own take and experience, devoting a long chapter to colleges and universities, and another to schools. There are also chapters on medicine, policing, the military, business and finance, philanthropy and foreign aid.

The author explains the origins of measuring and paying for performance, and why metrics became so popular. He makes the important point that it highlights extrinsic rather than intrinsic motivation, money rather than love. Culturally, it is interesting to note that Matthew Arnold attacked the narrow and mechanistic conception of education in his own day. Among the recurring flaws identified are measuring the most easily measurable, degrading information quality through standardisation, and improving numbers by lowering standards - which one sees in the ever rising proportion of first-class and 2-1 degrees in universities (24% of degrees in 2017 were Firsts). Readers will no doubt be familiar with the proliferation of procedures for reporting and decision-making in their own fields, requiring ever more meetings, reports and coordination, all of which leaves less time for actual teaching and research. Metrics also produce a narrowing of focus, for instance in teaching to the test and concentrating ever more exclusively on exams and results. Technically, the author defines this as goal displacement through diversion of effort to what gets measured, which also tends to promote short-termism and generally degrades the quality of experience of working as well as productivity. He ends with a useful checklist of when and how to use metrics. The book is an incisive corrective to a trend that should now be contained.

■ **Temenos Academy Review 2017**

Temenos Academy, 2017, 269 pp., no price given.

This annual review is full of interest, as it always is. For those unfamiliar with the Academy, it was founded by the poet Kathleen Raine, and the patron is HRH the Prince of Wales, who contributes a speech on true Renaissance. The highlights for me were Kathleen's article on poetic symbols as a vehicle of tradition, Joseph Milne on Meister Eckhart and the purpose of creation, Grevel Lindop comparing TS Eliot and Kathleen Raine as contemporary poets, and Malcolm Guite on Owen Barfield and his contribution to science, poetry and consciousness. Meister Eckhart is always a rich and subtle seam, and the principal idea here is that all creatures seek to become a likeness of God, most completely realised by the human soul. TS Eliot and Kathleen Raine were both influenced in their development by mystical experiences, which I remember Kathleen describing to me one afternoon over tea at her home in Chelsea. The article on Barfield links his work on language to his later books on the development of science and the elaboration of a participatory view, even more relevant to our culture today than when he wrote it. There are also poems, paintings and reviews, all of which make for a sumptuous feast of reading.

■ **DARE**

Estelle Toby Spike

CreateSpace 2018, 187 pp., p/b, no price given – buy on Amazon.

An inspiring autobiography based on the injunction of the title, Dare, encouraging readers to seek adventure rather than security. The author recounts her colourful life in many parts of the world, and each chapter is followed by what she calls a companion section inviting the reader to dare to live an authentic life from the perspective that we are here to learn and to grow and to live. Each ending can represent a new beginning and a stepping stone in life. Along the way, if we are lucky, we meet various soul companions inviting us to a deeper experience of life, perhaps also following our intuitive feelings. The final part is entitled Now, weaving together inner and outer, but with no final resolution – the quest continues with further and deeper initiations.

OTHER BOOKS RECEIVED■ **Policy Entrepreneurship in Education**

James Arthur

Routledge 2018, 176 pp., £23.99, p/b.

Here James Arthur draws on his pioneering experience in creating the Jubilee Centre for Character and Virtues at the University of Birmingham (www.jubileecentre.ac.uk). The book is invaluable as a guide to influence on policy making – increasingly evidence-based – and for social as well as policy entrepreneurs who want their work to have a wider influence and impact. I learned a great deal from editing it.

■ **The Philosophers**

Justin E. H. Smith

Princeton 2017, 272 pp., £14.95, p/b.

An unusual history of philosophy in six types: the curiosa, the sage, the gadfly, the ascetic, the mandarin and the courtier – shows how many different ways philosophy has been interpreted and embodied.

■ **Anthropocene – A Very Short Introduction**

Erle C. Ellis

Oxford 2018, 183 pp., £7.99, p/b.

An excellent introduction to this still controversial concept that appeared in the Oxford English Dictionary in 2014 and defined as the period in which human activity has been the dominant influence on climate and the environment.

■ **A History of Physics – A Very Short Introduction**

J.L. Heilbron

Oxford 2018, 175 pp., £7.99, p/b.

A comprehensive treatment of the history of physics in the West supporting the general idea of locating human beings in a directionless universe and the 'adult' view of Steven Weinberg that it is pointless and meaningless.

■ **Parenting with Values**

Christiane Kutik

Floris Books 2018, 117 pp., £8.99, p/b.

A valuable and accessible book on twelve essential values, attitudes or qualities: security, self-respect, empathy, capacity to tolerate frustration, independence, gratitude, truthfulness, interest in the world, well-nourished soul, sense of beauty, connection with nature, humour.

■ **Learning to Live Well Together – Case Studies in Interfaith Diversity**

Tom Wilson and Riaz Ravat

Jessica Kingsley 2017, 176 pp., £16.99, p/b.

A collection of case studies based in Leicester showing how people from a variety of religious backgrounds and convictions have learned to coexist peacefully.

■ **I Have Seen It Tomorrow**

Iris Krst

Self-published 2018, 283 pp., no price given.

This book is based on accounts from two people who have had extensive experience of out of body states. It contains some interesting insights about the phenomenology of the experience but the editing leaves a great deal to be desired in terms of the arrangement of the material and the explanation and backing up of some unusual statements.

ATTENTION MEMBERS

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Please help your administration office to run smoothly and so help you efficiently:

- when your details change (address, telephone number, email address etc.) please make sure we know
- use your membership number whenever you contact us, and write it onto all correspondence, conference booking slips, subscription forms and orders for books, services etc.
- book early for conferences - it helps you get a place
- ensure cheques are made out correctly to Scientific & Medical Network; for conferences and orders: always add (legibly!) details of what it's for and membership number on back, even when accompanied by a booking form
- remember we're a network, and it often takes time for all relevant people to be contacted so when making requests give us time to respond helpfully (and always remember to tell us who you are - we sometimes get forms back with no name at all!)
- help us save money; whenever possible pay in £ sterling and remember to gift aid when you make a payment (subscription, conference fees, etc..) - it maximises funds available for more important things.

Office hours are 10.00am to 5.00pm Monday - Thursday.
Please leave a message if no one is available to take your call.
We will get back to you as soon as we can.

The Scientific and Medical Network with
The Temenos Academy
The Resurgence Trust
The College of Medicine
The Health and Wellbeing Trust
The Sustainable Food Trust

The Quest for Harmony:

A unifying principle in spirituality,
science, sustainability and healthcare

70th Birthday Celebration for HRH the Prince of Wales

Saturday 17th November 2018
Canterbury Cathedral Precinct, CT1 2EH

Speakers: Prof Keith Critchlow, Dr Rosy Daniel,
Richard Dunne, Patrick Holden CBE, Dr Tony
Juniper CBE, Satish Kumar, David Lorimer,
Ian Skelly, David Wilson LVO



The Scientific &
Medical Network

The Scientific and Medical Network • Science and Religion Forum • The Study Society

Scientia & Sapientia - a Spiritual Quest

An 80th Birthday Celebration for
Prof. Ravi Ravindra and Prof. Keith Ward

Saturday 15th September 2018
Colet House, 151 Talgarth Road, London, W14 9DA



The Scientific &
Medical Network

Chairs:
Prof. John Hedley Brooke
David Lorimer
and Dr. Peter Fenwick

SCIENTIFIC AND MEDICAL NETWORK - Annual Gathering 2018

Evolving towards a Wise and Flourishing Future

Horsley Park, Surrey - 6-8th July 2018

Prof. Thomas Lombardo



The Scientific &
Medical Network

Chairs: Dr. Peter Fenwick
David Lorimer

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

The Network aims to:

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

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

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

Network services

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

Network Conferences

The Network's annual programme of events includes:

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

Joining the Network

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

Subscription Rates

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

Membership Applications

To request a membership application form, please contact:

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Email: info@scimednet.org

www.scimednet.org