





# **Quantum Revelations**

**Of the Real and Unreal  
Quantum Buddhist Metaphysics Rectifies  
New Age Propheteering & Subtle Quantum  
Materialist Madness**

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# Preface & Acknowledgements

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I have published this book just a few months after setting my previous book upon the world: *The Tibetan Book of the Undivided Universe: David Bohm's Quantum Philosophy of Wholeness in the Light of Buddhist Metaphysics*. The reason for this is that my research and writing trajectory was modified by surrounding events, leading to both books being completed more or less together. Early in 2020 I decided to write a book which was to be titled *The Quantum New Age: Quantum Prophets, Profits and Nay-Sayers*. This book was to be an exploration of the absurdities and deceptions of both ultra New-Age fantasists and their opponents, the hardcore quantum materialists. The focus of that projected book was pretty much the same as this current work, although its intended scope was more extensive.

I had written quite a lot by the time that, unexpectedly, a film and series of discussions was streamed on the internet promoting the work of the brilliant quantum physicist David Bohm.<sup>1</sup> Bohm's work within the field of the relationships and interconnections between quantum discoveries and Eastern spiritual-philosophical worldviews had been an increasingly central concern for my thinking as I was writing draft chapters for *The Quantum New Age*. As I listened to, and read, various expositions and discussions concerning Bohm's ideas in this area, it seemed to me that there was a need for a precise and detailed exploration of what Bohm's ideas, and their implications, actually are, rather than the New-Age agenda-driven fantasies which seemed to be quite prevalent in some of the presentations and discussions. I therefore changed course to write the book about Bohm and Buddhism.

Once *The Tibetan Book of the Undivided Universe* was finished I realised that I did not have the stamina to complete *The Quantum New Age* in the 'Magnum Opus' form in which I originally conceived of the project and that the sections I had already written were enough for a shorter book, which made the same basic point I was going to make in my original vision, without surveying the much larger expanse of intellectual terrain I had originally intended.

The decision to complete the chapters I had already mapped out in a shorter, more pithy, form also allowed me to do something I had been contemplating whilst in the research phase. This was to allow myself a greater freedom to indulge in humorous sarcasm and parody in some passages. A researcher in quantum metaphysics will come across a few good jokes along the way. In this connection it is worth mentioning what the significant physicist John Bell asked, in a skeptical frame of mind, about the idea that consciousness could manifest ‘reality’ from the world-wave-function backwards in time:

Was the wave function of the world waiting to jump for thousands of years until a single-celled living creature appeared? Or did it have to wait a little longer, for some better qualified system . . . with a Ph.D?<sup>2</sup>

A joke I have always admired. And when one is confronted with some of the absolutely bizarre and absurd claims made by some extreme New-Age Propheteers such a Paul Levy such jokes seem justified, for example according to Levy:

When a physicist observes an elementary particle – which from the quantum point of view “causes” the particle to exist – it is as if the physicist is “dreaming up” the quantum entity in the same way that a dreamer dreams up their own dreamscape. At the same time (if we let our creative imagination run wild) it is as if the elementary particle is reciprocally dreaming, as it dreams up the physicist to observe it and hence, bestow upon it existence. The physicist and the subatomic particle are, in a timeless process that actually takes place in time, mutually dreaming each other up . . .<sup>3</sup>

In the face of such “wild” absurdity, concocted in order to convince a gullible reader of the author’s mystical-literary prowess, jokes seem to be definitely on the menu of responses. I have endeavoured to place my quips appropriately as emphasis and light-relief amidst more serious explorations, which still constitutes the main mode of exposition in this work, of course.

However, although, as should be apparent, I have little patience with over-indulgent New-Age fantasy, and sometimes deception, this should not be taken to indicate that I have no experience of the mystical depths of the process of reality. The following story and observations also make up in large part the preface to *The Tibetan Book of the Undivided Universe*. The following remarkable event occurred to me about twenty

years ago, I include it again for readers who have not read my previous book.

One evening I settled into meditation posture at a local Buddhist group, but, because I was tired, instead of practising my usual focused breathing meditation, I decided to meditate on an internally generated image of sparkling water, in order to generate a spacious calm mind. What happened next astonished me. The vague image of sparkling river water I had managed to produce was replaced by a full colour panoramic vista of a Tibetan plain surrounded by mountains. From the mountain peaks, an assembly of Tibetan monk-deities wearing yellow hats flew towards me and surrounded me. At the time I did not know the identity of these deities but I later found out they were ‘wisdom-beings’, emanations of the wisdom bodhisattva Manjushri. This vision was like nothing I had ever experienced before in my life, in fact it was the first, and only, waking vision of such extraordinary clarity I have ever had. The life-like precision and vibrancy of the vision was extraordinary, not at all vague or unclear, the experience was as if I had a personal cinema inside my head. The only previous vision I can remember was that of a shimmering white woman staring at me from the foot of my bed when I was very young, and I may have been half-asleep at that time.

Once I was surrounded by these beings I saw, in great colourful precision and clarity, a ‘heart-sphere’ of deep red-orange coloured liquid form at my heart. Then tubes of this liquid funnelled out from my heart to the hearts of the Tibetan monk-deities surrounding me. This 3-D Technicolor vision lasted maybe minute or two, and then when I opened my eyes I saw that the channels of orange ‘nectar’ were connecting me to the hearts of the other meditators surrounding me. The vision then faded.

About a week later I was looking at the Buddhist section of a local bookshop. I saw a particular orange slim book on the shelf and an ‘inner voice’ indicated that this book was important for me. The book was called *Heart Jewel* by the Tibetan Buddhist leader of the New Kadampa Tradition, Geshe Kelsang Gyatso. I therefore bought it, but did not start looking at it for a few days. When I got around to reading through it I was surprised, to say the least, because very similar meditation visions to the one that spontaneously appeared to me were described in the book:

We then imagine white rays of light, which are hollow like straws, coming from the hearts of Je Tsongkhapa and his two Sons, and merging into one ... We imagine the great

wisdom of the Venerable Father and Sons, in the aspect of orange coloured nectar, all the atoms of which are in the aspect of tiny Manjushris. From all these tiny bodies of Manjushri, which are the commitment beings, infinite rays of light radiate throughout the ten directions and draw back the great wisdom of all the Buddhas in the aspect of Manjushri's form body. These wisdom beings dissolve into the tiny commitment beings within our body and become inseparably one with them. All these countless tiny Manjushris then dissolve into our root mind at our heart.<sup>4</sup>

Tsongkhapa (1357-1419) was a Buddhist scholar-practitioner who lived in Tibet during a time when Buddhist teachings are said to have been in decline. Through his study, practice and attainments, he led a renaissance of Buddhist teachings, and his teachings became the basis for the establishment of the Gelug monastery, and subsequently the Gelug school of Tibetan Buddhism arose on the basis of his teachings.

Manjushri is the Buddhist Bodhisattva of Wisdom. Generally, a 'bodhisattva' is a practitioner on the edge of full enlightenment who deliberately postpones enlightenment in order to remain in samsara, or cyclic existence, in order to work for the enlightenment of all beings. There are also some iconic bodhisattvas, however, who are fully enlightened beings who work for the enlightenment of all beings. Manjushri is such a bodhisattva. In particular, Manjushri is the fully enlightened Bodhisattva of Wisdom, in this context 'Wisdom' is *prajna*, the direct non-conceptual insight into the ultimate nature of reality. During a very intensive Manjushri retreat, Tsongkhapa gained a very clear vision wherein Manjushri appeared to him within a mandala.

Earlier in the year before I was surprised by the Manjushri commitment-beings vision, I had been thinking about perhaps writing a book about the mathematical concept of 'zero'. I have no idea why I came up with the idea of writing a book about zero. I have a Bachelor of Arts degree in Mathematics (Essex University only awarded B.A.s when I was there, fifty years ago, an early-stage 'woke' misguided attempt to suggest that degrees in real science and social sciences were equivalent!) and then went on to do an M.A. / Ph.D course in the Philosophy of Religion, specialising in Buddhism, at the University of Sussex. I completed the taught course at Sussex, and even taught a minor course on Science and Religion, but failed to complete the Ph.D because of various obstructing

life vicissitudes. In one sense, this was a personal disaster as I had a famous publisher interested in publishing my work.

Anyway, returning to my meditation vision, which took place twenty , or slightly more, years after my studies at Sussex University - one of the meditation visualisations described in *Heart Jewel* was a meditation that was performed by Buddhist practitioners who were about to write books about the *Dharma*, the Buddhist doctrines. Thus in the section ‘Receiving the Attainment of the Wisdom of Composing Dharma Books’, a similar meditation to that already described had an extra feature:

...we visualize the wisdom of composing Dharma books of Je Tsongkhapa and his sons flowing from their hearts in the form of orange-coloured nectar, all the atoms of which are in the aspect of tiny Dharma books on the subject of which we are going to write ...<sup>5</sup>

I did not realize at the time, of course, that my meditation vision might actually be an intimation that I was also about to write a book about Buddhist philosophy. My intention to write a book about ‘zero’, however, later developed into the task of researching and writing a book about the Buddhist concept of *sunyata*, the Buddhist term for ‘emptiness’, and quantum physics. The concepts of zero and sunyata are related. The root of the term *sunyata*, which is translated as *emptiness*, is *sunya*, the zero point, the cosmic seed of emptiness which is ‘swollen’ with potentiality. One meaning of *sunya*, which is the Indian origin of the concept of zero, is ‘the swollen’, in the sense of an egg of potentiality which is about to burst into manifestation.

I was so inspired by this vision that I decided to join the New Kadampa Tradition Buddhist Community at the Brighton Bodhisattva Centre, which was located just up a hill from the bookshop where I had bought the copy of *Heart Jewel*. Whilst there, especially at the beginning of my stay, I had dreams of meeting with Tibetan deities and also experiencing ‘emptiness’ by walking through walls in my dreams. I also had very profound meditation experiences, generated by a regular, sustained and committed meditation schedule. However, I became dissatisfied with the style of life and practice within the NKT and left after a year and a half. I no longer have any affiliation with any particular tradition.

These events, especially the manifestation of karmic traces of a previous life as a Tibetan monk, were life-transforming. And one of the results was

my return to serious committed research and writing. My view to write a book about zero now transformed into a decision to write a definitive book on the subject of the Buddhist concept of ‘emptiness’, and other Buddhist doctrines, and their relationship to discoveries in quantum physics. This became my first book *Quantum Buddhism: Dancing in Emptiness*, which I self-published in 2010.

When writing all my books I have focused on providing a degree of detail, analysis, and precision that goes beyond other works in the field. On the issue of degree of depth and detail, I think this may be an appropriate place to make some remarks concerning the reception of my work, and the state of research in the arena of science and spirituality in general. When I was researching and writing my first book *Quantum Buddhism* (QB), there were not many works of this nature available. And there were no works available which dealt with the issues in the depth, detail and precision that my work achieves. The reason for this is that I deliberately set out to make sure that my work went beyond what was available at the time, in depth, detail and precision, precisely because there is no point adding a book to those already available which added nothing new, nothing of greater import.

In the introduction to *Quantum Buddhism* I wrote:

When I began this project there were very few works dealing with the subject of quantum physics and Buddhism, although there was significant interest in quantum theory and various ‘mystical’ worldviews, an interest which generated a great deal of animosity in hardened scientific-materialist enclaves. This interest and research in the ‘mystical’ dimensions of quantum theory, a viewpoint which has vociferous opponents, has been dubbed ‘quantum mysticism.’ ... When I registered the domain name ... a google search on the term ‘quantum Buddhism’ would not have produced a great many significant hits. Shortly after registration of this domain and the setting up of my site, however, the number of sites purporting to deal in some way with this topic seemed to increase dramatically. Very few of these sites, however, seem to offer any new deep insights which would really justify the appellation *quantum Buddhism*. It was always my intention to firstly offer new, detailed and profound insights and elucidations in the research into parallels,

interconnections and mutually reinforcing perspectives of quantum physics and Buddhist philosophy ... [QB:11]

Furthermore, a vitally important point is that it is precisely *because* works expounding relationships and interconnections between science, religion and spirituality tend not to be profoundly detailed and precise that detractors are able to employ easy debunking strategies. As I wrote in QB:

The physicist Peter Woit, author of the book *Not Even Wrong*, a critique of string theory, is clearly outraged that *The Tao of Physics*, along with a very similar book that was published shortly after – Gary Zukav’s *The Dancing Wu Li Masters* and ‘other books of the same genre’ still grace the shelves of major bookstores and are selling very well. Such titles, according to Woit, are part of ‘an embarrassing new age cult.’ Surveying the literature dealing with this area it is impossible not to be struck by the severe polarisation into pro-quantum-mysticism and anti-quantum-mysticism positions. Unfortunately, most passionate proponents of the quantum-mysticism worldview tend to be rather loose in the standards of evidence and philosophical rigor that they employ or require. Books like *The Tao of Physics* or *Dancing Wu Li Masters* do not need rigorous argument and detailed exposition to appeal in this quarter. This is perhaps one reason why entrenched detractors of this perspective tend to be quite exasperated, not to say contemptuous, when attempting to keep the unruly worldview under control. ... It is indeed true that the opponents of attempts to question the validity of the unquestioning materialism which has marked the general Western academic attitude up until the present, and is still prevalent, tend to display a marked aggressive attitude, often resorting to sarcastic contempt. Peter Woit, for instance, is so contemptuous of Buddhist philosopher B. Alan Wallace’s book *Hidden Dimensions – The Unification of Physics and Consciousness* (2007), ... that he cannot be bothered to marshal any actual reasoning to support his contempt:

After enraging lots of philosophers, I fear that now I’ll enrage lots of Buddhists, in particular by having no interest in wasting time discussing Wallace’s ideas.<sup>6</sup>

However, the books and essays penned by Wallace, focusing on the significance of the interrelationship between Buddhist philo-

sophy and modern science, are actually fairly meticulously argued and cogent. It might be said that *Hidden Dimensions* does not present all the detailed argumentation to thoroughly make his case that:

...the measurement problem in quantum mechanics, the time problem in quantum cosmology, and the hard problem in brain science are all profoundly related.<sup>7</sup>

However, if the reader explores the directions indicated in his book, Wallace's contention is well supported, .... Wallace's book *Choosing Reality* (2003) still remains one of the most thoughtful and intelligent investigations into the epistemological and metaphysical interconnections between the Buddhist Madhyamaka and modern Western science. Wallace also edited the collection of essays *Buddhism and Science: Breaking New Ground* which was inspired by the interdisciplinary dialogues, organised by the Mind and Life Institute, between Buddhist practitioners (including the Dalai Lama) and philosophers, physicists and cognitive scientists. The depth and rigour of the analysis found in these thoughtful essays generally goes far beyond that found within the tirades targeted by critics at what we can call the 'Quantum Buddhism' perspective. It appears that those who wish to undermine the significant appraisal of the interconnections between the areas of science and Buddhism rarely take on the task of rigorously demonstrating their objections to any serious philosophical examination of the field. [QB:42-43]

So it was precisely because I was aware that the field was at that time causing such a polarisation of this kind, and that works presenting connections between quantum theory and spirituality were lacking in detail and precision, that I set out to produce a more detailed, precise and technical work.

I believe that *Quantum Buddhism: Dancing in Emptiness*, is such a work, and some people have contacted me to congratulate me and say that they consider I have achieved my aim. One of these was a highly qualified physicist who is also a long-term Buddhist/Non-Dual practitioner very knowledgeable about spiritual philosophies. Mike Roper contacted me to say that he considered that my work is definitive and unsurpassed in the arena of the interconnections between quantum physics, Buddhism,

and spiritual philosophy. He says that he is ‘mystified’ as to how my work has not been recognised more widely. Some other people have told me that without my work they do not think they would have really understood the connections involved between quantum discoveries and Buddhist metaphysics. This is because of the detail presented in my work. I know my work has been recommended by a couple of meditation teachers as being definitive in this area, because their students have contacted me to tell me so, a few have travelled to visit me to discuss how I came to be able to do this work. A Google search for the phrase ‘Buddhism and quantum physics’ brings up an image of my book on the first page of results, and yet the silence from the academic community has been deafening!

The almost complete lack of interest over the twelve years since my publishing QB does seem very odd, and Mike has indicated that, as I said, he is mystified, and would like to discover a reason for this overwhelming lack of interest for work which both he, and some others, consider goes beyond anything else available. Indeed, one person contacted me after reading QB to say I must be enlightened, I emailed back saying this was most definitely not true. My own meditation level is about first jhana, which is not at all exalted. However, it is sufficient to be able to turn off gross thought-processes in everyday life in order to experience the clarity and luminosity of the energy of pure consciousness, a very useful ability for anybody engaged in this type of research.

The ability to have some experience of the luminous presence of primordial awareness within one’s own mind-stream obviously enhances understanding of books about primordial awareness, especially when writing them. In fact, it is certainly the case that materialists are materialists precisely because they have no experience of deeper levels of consciousness, which are the deeper levels of primordial mind. I was able to activate this potentiality in my mindstream by using the excellent book *Mindfulness, Bliss and Beyond* by the Theravadin monk Ajahn Brahm, putting the instructions into practice.

During the roughly 8 years of research which went into the final phase of the writing of QB I was for a lot of the time in a great deal of pain due to a misdiagnosed medical condition that I have suffered from for most of my life, and has been misdiagnosed by incompetent doctors for most of my life. In order to cope with the pain and discomfort, I developed the ability to use alcohol to numb pain whilst maintaining a completely clear

and focused mind. People in the past were astounded to see the amount I was able to consume and still be able to conduct complex intellectual discussions and expositions. I became mildly famous at Sussex University for my ability to meditate and then go down the bar and consume large amount of beer whilst expounding complexities of Buddhist metaphysics, mythology, and physics. As I have just mentioned I am very far from enlightenment and my life has certainly involved many episodes very, very far from enlightenment, especially in the more distant days. Furthermore, much of my latter life has been lived in poverty, by Western standards, precisely because of long term misdiagnosed illness, and a need for alcoholic self-medication, a need which led to a serious confrontation with possible death a few years ago. And yet, whilst writing QB, books fell off bookshop shelves opened at the exact place I needed to resolve particular quandaries, and some sections of my book chapters were written in my dreams. It seems that it is quite possible for a sentient being at any point in time to partake of mixed karmic energies from different, although related in some way, karmic sources. According to Buddhism, there are no fixed 'selves', but there are interrelated continuities of mind energies coursing through the universal mind-energy of the ultimate sphere of the dharmakaya.

Since 2010, when I published QB, there has been an explosion of book writing and internet forums devoted to the mysteries of quantum physics, quantum metaphysics, and also the connections between quantum metaphysics, Buddhism and spirituality. When I was writing QB this was not the case, there were a few books on these subjects but very, very little happening on the internet. Today it is impossible to keep up with all the internet channels devoted to such subjects. I have occasionally left comments pointing out issues and elucidations which can be found in my work, but again, no response.

In 2018 another less than welcome karmic twist disturbed the serene, and unnoticed, path of my quantum mystical endeavours. One of the people who was very enthusiastic about my work was the New-Age Propheteer Paul Levy, someone who, deservedly, plays a role as an incarnation of the worst of New-Age absurdity which is taken to task in this work you are about to read. He wrote an Amazon review of QB, part of which read:

Out of all the books I've received, not to mention all of the ones in my library from years past, "Quantum Buddhism" stands out.

It so blew me away that I've already ordered Smetham's next book ... In his writings, Smetham reveals a deep understanding of how the deepest wisdom of the teachings of the Buddha and quantum physics show a precise correlation, continually pointing out these correlations in creative ways that could not be further away from the fuzzy, new age thinking that is characteristic of many such books.

He contacted me to ask which of my books contained the most significant insights. He then set about writing his own version of QB, clearly based on my work. In some significant sections of his book he clearly plagiarised my books, virtually reproducing significant sections, sometimes lifting the exact sentences in a few places. In 2018 he published his book *The Quantum Revelation: A Radical Synthesis of Science and Spirituality*, and when I read this book I had a very weird feeling I was reading my own work. And then in the most technical section of Levy's book I realized I *was* reading my own work. Levy does give one reference to me, but this is a smoke-screen or cover-up of the extensive pilfering of my ideas, some of which I can show to be unique to me. Levy's book was showered with praise by many New-Age worthies. The New-Age Priestess Jean Houston suggests that Levy's book is worthy of being compared as a twentieth-century Dante's *Divine Comedy*, an evaluation which is itself comical! I contacted the New-Age pundits who hailed Levy as a cosmic genius to point out the real source of his heavenly inspiration, but, again, the response was Cosmic Silence!

Levy then popped up on several New-Agey YouTube channels, and when I commented about his mystical misdemeanours on such channels, with a link to an article clearly proving my case (an article that is the basis for the last chapter of this book), the comments were turned off!

After publishing my book, *Quantum Path to Enlightenment*, I decided to take a break from constant research and writing. But then sometime in 2020, Mike Roper got in touch with me to praise my work and suggesting we meet up. He visited Brighton and we spent a couple of hours in Waterstones bookshop discussing the state of research in 'quantum mysticism' and 'quantum Buddhism', and such topics. Since then we have had weekly discussions concerning such issues, as well as the state of the world in general. Mike is a 'chartered physicist' - a 'CPhys'. Until meeting Mike I had no idea such people existed. According to the Institute of Physics:

CPhys represents the highest standards of professionalism, up to date expertise, quality and safety, and holders have demonstrated the capacity to undertake independent practice and exercise leadership. Chartered physicists have attained an integrated masters degree in physics (or demonstrated equivalent levels of underpinning knowledge), acquired a breadth of physics related competence and have exercised significant levels of responsibility for a sustained period of time. The title also denotes commitment to keep pace with advancing knowledge and with the increasing expectations and requirements for which any profession must take responsibility.<sup>8</sup>

I point this out because my own education in academic physics only goes as far as first year university. After that I concentrated exclusively on Mathematics, and then went on to the Philosophy of Religion course at Sussex. Whilst this is perfectly adequate to understand the equations of physics sufficiently for understanding the debates in the interpretations of quantum theory, sometimes those who wish to undermine any kind of quantum-spiritual perspective will claim that only those rare individuals who understand the most complex and subtle equations describing the physical world ever concocted could possibly understand quantum theory. This claim is false, although one should have a reasonable degree of mathematical competence and understanding of physics. But it helps to have one's views endorsed by someone whose qualifications surpass one's own.

Mike has provided his following evaluation of my Bohm and Buddhism book, I know that it indicates his view of my work in general:

This book, like Graham Smetham's other work is a 'tour de force'. It manages to bring together in one volume three different, but connected strands, and show they form a coherent and consistent 'whole'. His treatment of the subtleties of David Bohm's 'metaphysical insights', the intricacies of Quantum Mechanics interpretation and the equally subtle and intricate underlying 'philosophy' of a very important 'school' of Tibetan Buddhist philosophy, is well above and beyond anything readily available. All this is done in a single volume - weaving these three threads together - to show they indeed form a genuine 'whole'. A wonderful achievement. Where others merely 'suggest' connections - in typical 'New Age' fashion - he actually spells out the details. A unique and valuable contribution to the

ongoing efforts to formulate a comprehensive ‘metaphysical’ picture of ‘Reality’. Provided the reader has some background in Physics and Buddhism - there is no better work available, that tackles this monumental task. A consummate achievement!

Mike was emphatic that I should research and write the Bohm and Buddhism book, and now that it is done I am very pleased with my labours, and grateful for Mike’s encouragement. I was going to publish this book shortly after the *The Tibetan Book of the Undivided Universe*, but found that I again needed a rest period and so have left it for a few months before engaging in the final tidying up and publishing. Perhaps publishing at the beginning of a new year will have advantages.

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My profound thanks also go to Erik Scothron, the main editor for Shunyata Press, who has been a long-term collaborator in my work, being hugely significant from the beginning. Although Erik now resides in the Philippines and has less time, and obviously we cannot talk face to face as we did daily during the writing of my first books, he nevertheless does an invaluable job of reading for content and offering feedback, and also proof reading for errors, a task of great tedium, but essential! As this is a self-published book, I am sorry to say that a few errors always slip through. I apologize for any irritation caused.

I hope this work contributes to the task of elucidating the true spiritual nature of reality.

The websites and forum for my work are:

**Websites:**

quantumbuddhism.org

clearlightmind.org

**Facebook forum:**

<https://www.facebook.com/groups/185195343194>

# Introduction:

## Extremes of the Quantum New Age

**The** primary areas of concern for this book, which lie within the field of quantum philosophy, metaphysics and implications for the understanding ‘spiritual’ worldviews, are twofold. Firstly, to clearly present some remarkable conclusions it is possible to safely make concerning the relationship between modern quantum discoveries and the claims of ‘spiritual’ worldviews, focusing primarily on Buddhist metaphysics. Secondly, to highlight two misleading intellectual agendas of deception, which operate today within the realm of quantum philosophy / spirituality. Within this latter concern I also focus on a particularly egregious example of New-Age ‘propheteering’, a neologism I have concocted hopefully for obvious implications, wherein a recent New-Age Propheteer has plagiarised my work for his own advancement.

The first deceptive narrative consists of the often over-inflated and over-simplified claims made by certain New-Age prophets and propheteers, many of whom seem to make significant profits by means of their overblown New-Age ‘propheteering’. Such propheteers regularly write books with titles that seem to promise easy enlightenment by means of a weekend spent reading the appropriate book by one of the various New-Age prophets. The hallmark of such works is the tendency to over-inflate valid quantum discoveries beyond the scope of validity in order to amplify the New-Age wow-factor for the sake of a frisson of shallow spiritual intoxication. Such works often contain deep spiritual truths, but often these spiritual truths are actually undermined through the tendency to push reality into the realms of the unreal, and often into the realm of the absurd. One of the problems of this tendency is the fact that this over-inflation into unreality on the part of New-

Age Propheteers makes them easy targets for more sober-minded scientists who wish to bring them to heel.

The second ‘extreme’ viewpoint is that which I have termed ‘subtle quantum materialism’. This is a kind of intellectual rear-guard action on the part of a cabal of physicists and philosophers who are committed to undermining the implications of quantum insights concerning the centrality of consciousness within the process of reality and the functioning of the universe. This claimed crucial role for quantum consciousness is, of course, a major focus for New-Age Propheteers. And it is the major focus for intellectual dissent and attack on the part of the subtle quantum materialists. These ‘subtle quantum materialists’ will happily bask in the weird wonders of the quantum world, and some write popular books on the subject, but they mount deceptive campaigns of misinformation in order to preserve what they consider to be the necessity of their preconceived preference for the world to be essentially a material place, even through quantum discoveries only allows them a very nebulous and ethereal material environment! And, as a result of this deep-seated preferential preconception, members of this intellectual cabal, although assenting to the incontrovertible fact that quantum discoveries have clearly overturned the crude material ‘classical’ worldview of the nineteenth century, nevertheless resolutely dig intellectual defensive ditches against any indication that mind and consciousness might be primary aspects of the process of reality.

I hope that, by means of distilling the truth latent in each side of the deceptive narratives, and bringing truth to a middle ground between the extremes of fantasy and dogmatism, a middle ground that is clearly defensible on the basis of evidence and analysis can be revealed. It will then be possible to clearly present what can definitely be said concerning the ultimate nature of reality, its ultimate immaterial nature and the primacy of consciousness within the process of reality. Both of these conclusions are clearly indicated by the modern discoveries in quantum physics, discoveries which map easily into worldviews such as Buddhist ‘spiritual’ metaphysics. As the Russian quantum physicist Michael Mensky, a physicist and professor who worked at the Lebedev Physical Institute of the Academy of Science in Moscow, and who

was not a Buddhist or member of any other spiritual tradition, observed:

...mystical aspects characteristic of any religion not only are compatible with natural sciences, [and] natural science (first of all their central part, quantum mechanics) is logically defective without the inclusion of the concept of consciousness with its mystical features.<sup>9</sup>

And Mensky also tells us that his precise analysis of the details of quantum mechanics has led him to propose a Quantum Concept of Consciousness (QCC) which:

... makes it possible to understand that there is no contradiction between science and mysticism. This makes it possible for [people] to believe in God, or in Truth, in ... Buddhism, and so on, and offers ... enormous possibilities, hidden in human beings, ... possibilities which make one truly free, without which he/she is only a slave of ... external circumstances.<sup>10</sup>

Mensky's work is detailed, technical and precise, and therefore does not fit comfortably into the 'New Age' genre. And Mensky's approach shows why it is important, when engaged on the task of clearly presenting the case for such a hugely significant modern spiritual worldview, to be precise and avoid vague hyperbole and overstatement.

The proper awareness of the precise truth of recent 'quantum revelations' is undermined by the two deceptive agendas, both of which seek to completely own the quantum philosophical territory for their own apparently sometimes ego-based motives. To reiterate, the two deceptive worldviews are: firstly, that of the Quantum New-Age Prophets, or 'Propheteers', who sometimes seem to have a side-eye on quantum-mystically generated profits, and secondly, that of the anti-quantum-mystical, consciousness-denying, subtle-quantum-materialist ('realist') nay-sayers, who stake academic reputations on their adoption of dubious modes of scientific philosophical practice, which they falsely deify as the ultimate procedures of 'real, 'hard-core', 'physical', 'science'. Such an approach generally involves a dogmatic presumption that the world must be, if not fully material, at least semi-materially

really real! Mind, on the other hand, must be a kind of after-thought on the part of a quantum-material universe!

The latter antagonists regularly assert that what many people think is a fundamental aspect of reality - ‘consciousness’, the internal clear, empty, luminous capacity of knowing, the foundational aspect of reality which allows life to function as life, does not exist in its own right. Some Quantum New-Age Propheteers, on the other hand, seem to indicate, if their assertions are taken *too literally*, that you will be able to walk through walls once you have read an adequate number of their books! Thus we read in the book *You Are the Universe: Discovering Your Cosmic Self and Why it Matters* by Deepak Chopra and Menas Kafatos:

If ... we are creators of reality living in a conscious universe that responds to our minds, that reality must be accepted.<sup>11</sup>

As you may guess, such extreme claims, on both sides of the debate, are not really true.

Extreme New-Agey type advocates of the implications of quantum weirdness sometimes seem spectacularly reckless in the sweeping claims that they make. Fred Alan Wolf, for instance, promotes his CD *Dr Quantum Speaks: A Users Guide to your Universe* and is quite brazen with his quantum optimism, and perhaps opportunism:

Matter can move backward and forward in time. Objects may be in two places at once. Simply looking at an event can alter it instantaneously. Quantum physics is an astounding (and mind-boggling) field of science—but can you actually use it to change your life? The answer, teaches Dr. Quantum, is absolutely yes.

This is followed by New Age salesmanship:

Your Mind is a Quantum Engine—Are You Ready to Fire It Up? ... Prepare to Unlock Your Own Quantum Super-powers...<sup>12</sup>

The quantum-mysticism High-Priestess Jean Houston has been quantum-super-powered and now advertises to her followers the possibility of “accelerating” their “evolution” by “unlocking” their own “quantum powers”:

Activate The 5 Quantum Powers That Will Draw To You The Resources, People & Skills You Need To Live A Remarkable Life And Make A Greater Difference In The World. Tap into deep sources of energy within you, accomplish more in less time, and experience a profound sense of clarity about how to best achieve your goals.<sup>13</sup>

Such extraordinary overblown claims concerning the capacities of ‘quantum powers’ are probably in large part responsible for the exasperation of some physicists and philosophers who seem to have pledged themselves to valiantly resist the ‘mystical’ encroachment of quantum-consciousness claims into the realm of ‘physical’ science.

In 1993 the quantum physicist Amit Goswami entered the arena with his perhaps less extreme, but still provocative, book *The Self Aware Universe* with its central claim that quantum physics proves that reality must be fundamentally produced from consciousness. According to Goswami matter is an illusion generated by mind, and all of the current problems of interpretation within quantum theory can be defused by his idealist view that reality is a play of consciousness. In 1996 Fred Alan Wolf, another physicist with strong quantum-mystical leanings, who has adopted the name ‘Dr. Quantum’, published *The Spiritual Universe: How quantum physics proves the existence of the soul*. In 2001 Goswami added yet another title to the growing list of books announcing the dawning of the age of quantum spirituality: *The Quantum Book of Life, Death, Reincarnation and Immortality*.

Goswami, Wolf and others then upped the stakes in this area of controversy with their involvement with the production of the cult film *What the Bleep Do We Know*. This film is the cinematic figurehead for a movement promoting the message that anyone can transform their life once they get on the quantum-mystical bandwagon. The film has drawn considerable critical hostility because of its naive and simplistic message that anyone can transform reality once they grasp the nature of the quantum ground within the universal consciousness; the film also seems to imply that it is possible to easily learn to manipulate the material world through conscious manipulation of the quantum ground. This claim has led one critic to challenge Goswami to leap out of

a 20<sup>th</sup> floor window and change material reality on the way down so that he landed unharmed!<sup>14</sup> Thus, we see how the ‘New Age’ tendency for extraordinary and reckless overstatement can lead to a very hostile intellectual response.

However, on the opposite side of the issue, in the service of their anti-quantum-mystical push-back some physicists seem to be able to get away with incorrect, dubious, and occasionally quite absurd, claims without serious philosophical push back from their academic compatriots. Quantum New-Age Propheteers generally have a harder time of it in mixed philosophical circles, so to speak. One example of an essentially unchallenged physicist presenting dubious claims as hardcore quantum metaphysics, is provided by the high profile physicist Sean Carroll’s promotion of the Many-Worlds quantum delusion, a delusion resorted to in order to attempt to uphold the equally delusional belief that consciousness does not have any significant role to play in the process of reality. Consciousness is, in Carroll’s world, a kind of afterthought of the material world, an unnecessary impostor into reality.

In order to appreciate Carroll’s attempted intellectual con-trick, it is necessary to appreciate the viewpoint of a physicist such as Goswami who asserts, on the basis of his analysis of the quantum evidence, that consciousness does have a significant role in the process of reality. Carroll endorses the Many-Worlds view of quantum mechanics, a view which was instigated by Hugh Everett and promoted by Bryce DeWitt. This view claims that all sentient beings are ‘splitting’ into multiple copies of their ‘selves’ at every moment of time, whatever that could possibly mean. On this view, consciousness is a kind of mute by-product which has no active role in the process of Many-Worlds reality-functioning. Goswami, on the other hand, starts his analysis from the basis of the Many-Worlds viewpoint, but, rather than disparaging the role of consciousness as Carroll does, indicates that consciousness plays a role in producing a single world of experience. Goswami’s account is closely aligned with that of Michael Mensky, who also suggests that consciousness ‘chooses’ a route through the many worlds of quantum possibility.

The point to start out with is the fact that quantum mechanics tells us that at the quantum level there are a multitude, possibly infinite,

of 'worlds' that might be experienced by sentient beings. These are the 'possible worlds' that exist only as possibilities before one of them, or some of them, or all of them, are actually experienced, the experiences being generated as consciousness apparently interacts with the quantum realm of possibilities, which is a quantum 'possibility wave'.

Goswami gives his view of this process which he, and others, call the 'observer effect' as follows:

In quantum physics, objects are depicted as possibilities (a possibility wave); yet when an observer observes, the possibilities collapse into an actuality (the wave collapses into particle, for example). This is the observer effect.<sup>15</sup>

On this view, before consciousness does its job, the world is a quantum field of unrealised possibilities hovering between reality and unreality. The realm of quantum possibility is not fully real but neither is it completely unreal. It is Pre-Real! And, according to the Goswami-type 'observer-effect-scenario', when consciousness interacts with the quantum realm of possibilities then one of the possibilities becomes real and the others disappear into unreality. This is sometimes termed the 'collapse of the wavefunction'. Thus Goswami takes a dramatically contrary view to Carroll's Many-Worlds science fiction fantasy.

Goswami, however, has had his credibility questioned due to his excessive New Age activities. But he is not the only physicist to share such a view. As just indicated, the Russian physicist Michael Mensky, who did not engage in any New-Age promotional activities of any kind, also thinks along these lines:

...quantum mechanics...attempts to represent the measurement process ... as completely objective, as absolutely independent of the observer who perceives the result of the measurement, [such attempts] have not met with success ... the description of quantum measurements ... must involve ... the observer or, to be precise, the observer's consciousness...<sup>16</sup>

According to Mensky the overall consciousness of an observer, which includes both conscious and unconscious realms of mind, encompasses all possibilities but selects only one world to directly

experience:

The consciousness as a whole splits between alternatives, and a ‘component’ of consciousness lives within one classical alternative, perceives only this single alternative classical reality.<sup>17</sup>

As a result, sentient beings experience only one world, in general, in everyday life.

So, according to Menzky, a sentient being’s entire consciousness as a whole, including focused awareness, subliminal awareness, and the completely unconscious levels, encompasses the entire quantum reality, but the focused upper levels experience only one pathway of possibility, they appear to navigate through quantum potentiality. Furthermore, and importantly, the ‘choice’ of this pathway, in Menzky’s viewpoint, is not a fully individual choice, it has a large degree of collective determination, so individual beings do not ‘choose’ their pathway through quantum possibility completely due to personal whims and desires. Most of the ‘choice’ occurs on an unconscious level. Both Goswami and Menzky, in different versions, consider consciousness, or an aspect of consciousness, to have an independent active role to play in interacting with quantum possibilities, and there are other physicists with similar views, with differing details.

Physicist Sean Carroll, however, vigorously rejects such a consciousness endorsing quantum ‘mysticism’. Carroll is a pure no-consciousness-nonsense Many-Worlds quantum ‘interpretation’ enthusiast. According to him all the worlds within the quantum realm, or wavefunction, are all as real as each other, all beings are being rent asunder into vast numbers of ‘copies’ of ‘themselves’, whatever that could possibly mean in any world, at every moment in time. And, Carroll tells us:

Consciousness, in particular, has nothing to do with it. The “observer” could be an earthworm, a microscope, or a rock.<sup>18</sup>

Welcome to some of the laughable absurdities some physicists will stoop to in order to put consciousness where they mistakenly think it should be, in the dim margins of unreality. Here is Carroll’s

Alice in Wonderland quantum magic show wherein rocks do a lot of ‘observing’ but consciousness has no place!

It is worth noting that Bryce Dewitt, also a Many Worlds enthusiast, said of this view:

I still recall vividly the shock I experienced on first encountering this multiworld concept. The idea of  $10^{100+}$  slightly imperfect copies of oneself all constantly splitting into further copies, which ultimately become unrecognizable, is not easy to reconcile with common sense.<sup>19</sup>

The notion that there *really* are vast multitudes of “slightly imperfect copies of oneself all constantly splitting into further copies”, is very difficult to comprehend or to take seriously, although quite a few do. Indeed, this view only has surface plausibility, a philosophical analysis of exactly what it means to be the ‘same’ ‘self’ in a ‘different’ world indicates serious issues of conceptual coherence. At what point does the supposedly same ‘self’ become a different ‘self’ for example. The significant physicist John Bell, with his scathing quantum-sarcasm, declared that:

...if such a theory were taken seriously it would hardly be possible to take anything else seriously.<sup>20</sup>

Indeed! The number of supposedly separate worlds, occupied by ‘imperfect’ copies of multiple ‘selves’, at every moment in time, according to Many Worlds, must constantly increase by a vast amount. DeWitt referred to this idea as “schizophrenia with a vengeance.”<sup>21</sup> But such schizophrenic nonsense, which is highly useful for science fiction writers, results from drawing crude and silly conclusions from what is actually a very complex and subtle quantum situation.

Along the way, Carroll at some point makes the claim that the idea that consciousness interacts in some way at the quantum level of reality, thereby producing a single experienced world for a sentient being, was horrifically vague, whereas his ‘preferred’ Many Worlds vision, wherein each sentient being is constantly, presumably at every sub-sub-sub-micro-second, dividing into many copies of itself, was, presumably, beautifully precise. But he presents absolutely no evidence or analysis to support this

claim, and in fact both claims are actually equally precise or equally vague.

The claim that when consciousness performs a measurement it causes the quantum possibility-function ('wave function' or 'wavefunction') to 'collapse', the 'collapse' referring to the way that the numerous possible outcomes which are contained in the quantum possibility-function are supposed to 'collapse' to just one experienced outcome is, Carroll says, not precise about exactly when the world becomes 'real' as one experienced outcome. In this context Carroll asks : "When exactly does the measurement occur, and how quickly?"<sup>22</sup> But a similar vagueness also applies to the Carrollian anti-consciousness Many Worlds view. Carroll's Many Worlds interpretation is imprecise about exactly when the vast field of quantum possibilities splits into different worlds. There is absolutely no difference in physical exactitude, and any rational person should be able to see this without difficulty. It seems that Carroll simply makes stuff up to support his preferred view. And it also seems that seldom does anyone seriously challenge him. Carroll has a YouTube discussion channel '*Mindscares*' in which he discusses such issues, and he regularly gets away with philosophically dubious claims without push-back. This is because often his discussion partners share a 'quantum-materialist' perspective, and when they do not they seem remarkably reluctant to stand up to him vigorously.

The claim concerning the vagueness of exactly when an interaction might produce a wavefunction 'collapse' is an example of this. The fact of vagueness of the exact point of 'collapse' does not invalidate the claim, it only calls for more precision. But many people would not realize such subtleties and, due to ignorance, would simply assume that Carroll had won the point and demonstrated a refutation! Shortly after musing over this issue, I read the book *The New Quantum Age: From Bell's Theorem to Quantum Computation and Teleportation* in which the author, the Professor of Physics Andrew Whitaker, makes exactly the same point concerning exactitude of the two views. In the following passage the 'Von Neumann's interpretation' corresponds to the measurement induced 'collapse of the wavefunction' viewpoint, 'world splitting' corresponds to Carroll's Many Worlds position:

...one of the main problems of Von Neumann's interpretation is that, because a 'measurement' cannot be defined in fundamental terms, it is not clear when a collapse should occur, exactly the same applies to world splitting.<sup>23</sup>

It is clear, then, that Carroll presents his preferred Many Worlds automatic 'world splitting' vision as being more scientific, because, he claims, less vague, whereas the other, equally qualified physicist, sees no difference in the vagueness of the two opposing versions.

In a YouTube video, '*Quantum Mechanics (an embarrassment) - Sixty Symbols*',<sup>24</sup> Carroll declares, without reason or evidence, that the idea that consciousness is involved significantly in quantum functioning is "bogus". A little earlier on in the talk Carroll likens the Many Worlds situation to the situation of a car approaching a divide in the road. It is like there were "two copies of the car all along, but they were precisely the same, and then they diverged when this quantum event occurred!" When one listens to such illogical drivel one is forced to recall John Bell's remark regarding the Carroll type Many Worlds absurdity:

...if such a theory were taken seriously it would hardly be possible to take anything else seriously.<sup>25</sup>

In Carroll's example of Many Worlds 'car-splitting', of course, there is, one would hope, a driver, or, rather, "two copies" of the driver, or maybe as many 'copies' as needed for the number of road forks on the journey, stacked "on top of each other" in the car. I have never seen anyone point out to Carroll that such claims are as absurd as any New-Age quantum mysticism claim!

Carroll tells us that it was a "quantum event" that caused the "two copies of the car" to go their separate ways, presumably along with the divided "two copies" of the driver also going in different directions in different 'worlds'. This implies that Carroll must think that the conscious decision experienced as an intentional act by the drivers, was nothing other than an illusion generated by a "quantum event", which in turn is caused by some kind of "quantum interaction", and that his bed-time fantasy story is rigorous science! And, in contrast, Carroll actually thinks that the

notion that consciousness is involved is vague and “bogus”! Talk about an embarrassment!

However, Carroll is an example of a physicist who simply thinks that his personal preference for living in a material world in which consciousness is more or less irrelevant must mean that we are actually living in such an impoverished reality. According to Carroll:

1. Consciousness arises from brains.
2. Brains are coherent physical systems.

That’s all.<sup>26</sup>

But the problem with this simplistic dogma is that we know that all ‘physical’ systems arise from immaterial quantum fields (Carroll is a quantum field theorist!), and the idea that quantum fields interact with themselves to produce non-conscious physical systems, and then such non-conscious physical systems somehow magically create a completely and absolutely different quality of the process of reality, i.e. consciousness, is philosophically incoherent. Furthermore, there are significant physicists and philosophers who do clearly endorse the claim that consciousness functions significantly at the quantum level, and the evidence, as we shall see, cogently supports this contrary perspective to the quantum-materialist view promoted by Carroll.

For example, the philosopher Bernardo Kastrup, in his book *Rationalist Spirituality*, tells us that experiments have been performed that provide significant evidence that free-willed interventions in what might be thought by quantum-materialists to be deterministic processes do take place:

For instance, when shown a photograph that would normally enact sexual arousal, conscious subjects were instructed to use conscious effort to modify this instinctive, hardwired emotional response. ... such efforts were often met with success. If conscious experiences were entirely the result of electrochemistry in the brain, the experience of sexual arousal should be a deterministic outcome. Yet this does not seem to be the case.<sup>27</sup>

There is also clear evidence that free-willed activity rewires the structure of the brain. In the monkey-abusive Silver Spring

experiments the nerve ganglia that supplied sensation to the brains from monkeys' arms and legs were cut and various forms of encouragement, such as electric shocks, were used to force the monkeys to use the limbs they could not feel. Subsequently it was discovered that significant cortical remapping had occurred, showing that being forced to use limbs with no sensory input had triggered changes in their brains' organization. This evidence of the brain's plasticity helped overturn the widely held view that the adult brain cannot reorganise itself in response to intentional actions. Professor of Psychiatry Jeffrey Schwartz, in his excellent book *The Mind and the Brain* says of this discovery:

Mind, we now see, has the power to alter biological matter significantly; that three pound lump of gelatinous ooze within our skull is truly the mind's brain.<sup>28</sup>

Such evidence is simply ignored by those who, bizarrely, dislike their consciousness having control of their brain!

We shall look at the views of significant physicists who take the opposite view to Carroll. For example, the highly respected physicist Henry Stapp, asserts that: "We live in an *idealike* world, not a *matterlike* world".<sup>29</sup> And Stapp has written in detail how mental free-will uses quantum brain mechanisms. The Wikipedia entry for Stapp states that:

In 1958, Stapp was invited by Wolfgang Pauli to ETH Zurich to work with him personally on basic problems in quantum mechanics. ... In 1969 Stapp was invited by Werner Heisenberg to work with him at the Max Planck Institute in Munich. In 1976 Stapp was invited by J.A. Wheeler to work with him on problems in the foundations of Quantum Mechanics. Dr. Stapp has published many papers pertaining to the non-local aspects of quantum mechanics and Bell's theorem, ... Stapp has worked also in a number of conventional areas of high energy physics, including analysis of the scattering of polarised protons, parity violation, and S-matrix theory.<sup>30</sup>

So Stapp was working with, and discussing various quantum issues with, some of the greatest names of quantum physics before Carroll started secondary school, Stapp was working with Wolfgang Pauli, a 'founding father' of quantum mechanics, before

Carroll was born. And yet, Carroll just dismisses his views with arrogant dogmatic confidence: “Almost no modern physicist thinks that ‘consciousness’ has anything to do with quantum mechanics”.<sup>31</sup>

Stapp is not the only significant physicist Carroll dismisses with such sneering arrogance, one can mention the important physicists Max Planck, John Wheeler, David Bohm and Michael Mensky. But, whereas Carroll gives no cogent reasoning for his haughty proclamations on this issue, these physicists give more detailed reasoning to support their conclusions.

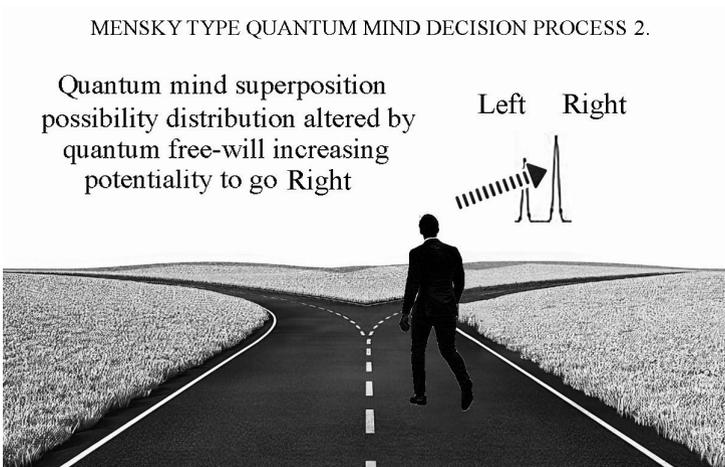
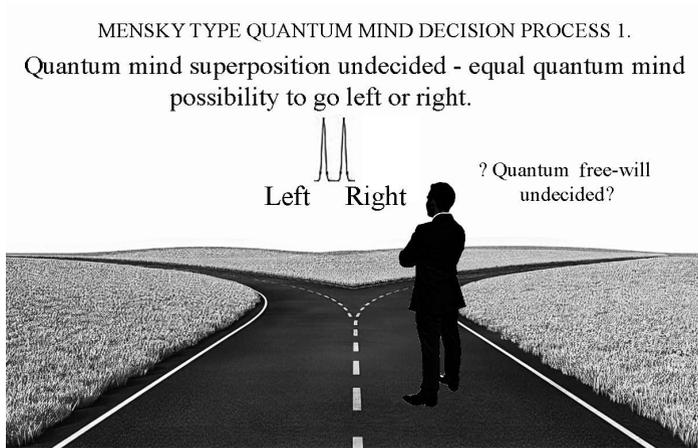
We have previously looked at Carroll’s quantum fantasy about cars and drivers ‘splitting’ when encountering road-forks. Russian physicist Michael Mensky also gives a quantum account of making a decision when confronted with a fork in a path or road, this time on foot. Mensky gives a detailed exposition of the mechanism of ‘postcorrection’, which is a quantum ‘look-ahead’ mechanism, a mechanism which actually operates in photosynthesis in plants. In plants the light-energy transmission pathways within the cells in the leaves are tested out by the internal cell-mechanism at the quantum level. All possible pathways are tested in a state of quantum superposition. The most efficient pathway is ‘chosen’ after (‘post’-correction) the possible pathways for energy transmission are tested out at the quantum level.

Mensky, in his paper *‘Reality in quantum mechanics: Extended Everett Concept and Consciousness’*,<sup>32</sup> gives the following account, presented within the context of his ‘Extended Everett Concept’ - EEC, of the phenomenon of ‘free will’ when deciding between taking a right or left turning:

If I wish to go to the right and actually go to the right, how (does) this happen? ... In the framework of EEC, if the modification of probabilities is assumed, free will is explained quite naturally. There are two alternatives: in one [of] Everett’s world[s] I go to the right, in the other I go to the left. Both alternatives have non-zero probabilities. My consciousness modifies the probabilities, increasing the probability of the first alternative. As a

result, with a high probability I go to the right. This is my free will.<sup>33</sup>

This view indicates that a person's consciousness goes into a quantum superposition - many possibilities at the same time - state wherein there are high probabilities within the quantum state to go either left or right. In Mensky's elucidation, in which he presents the way that a person's 'quantum mind' functions at the quantum level when a decision has to be made, the mind will go into a quantum state of hovering between close to equally weighted quantum probabilities of left and right, and the free will of a person's mind can alter these probabilities in order to make the decision and thereby cause the brain to control the body. The Mensky type quantum mind decision process is crudely illustrated below.



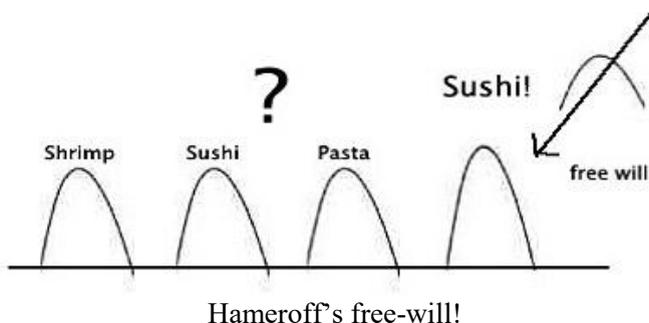
Quantum-consciousness researcher Stuart Hameroff gave an account which can be made consistent with Mensky's quantum free-will scenario, through careful analysis, when he described the quantum functioning of the Penrose-Hameroff model of 'volitional choice' as follows:

In a volitional act possible choices may be superposed. Suppose for example you are selecting dinner from a menu. During pre-conscious processing, shrimp, sushi and pasta are superposed in a quantum computation. As threshold for objective reduction is reached, the quantum state reduces to a single classical state. A choice is made. You'll have sushi!<sup>34</sup>

The details of Hameroff's depiction here, however, are not overtly that of a free-willed volitional choice, it is an account of the illusion of a volitional act, hence the term 'objective reduction', rather than a 'subjective reduction', which would be a 'real' volitional choice. Hameroff's view is an account which requires one to believe that the mechanism to prompt you to decide for 'sushi' is somehow pre-encoded into a kind of 'Platonic' realm, and when a certain point in the volitional process is reached an automatic 'objective reduction' takes place. But Hameroff also indicated that;

Free will may be seen as a combination of deterministic pre-conscious processes acted on by a non-computable influence.<sup>35</sup>

Hameroff here is trying to account for a kind of fake free-will whilst avoiding being clear about the full implications of his viewpoint, what exactly does 'non-computable' mean? As we shall see, a full comprehension of current implications of quantum evidence indicates that Hameroff's 'non-computable' influence can only be quantum free-will.



Henry Stapp believes that quantum discoveries clearly involve free-will operating at the quantum level:

Philosophers of mind appear to have arrived, today, at less-than-satisfactory solutions to the mind-brain and free will problems, and the difficulties seem, at least prima facie, very closely connected with their acceptance of a known-to-be-false understanding of the nature of the physical world, and of the causal role of our conscious thoughts within it.<sup>36</sup>

And remarkably, Stapp makes this point in a theological context when he asserts that the quantum universe is:

...concordant with the idea of a powerful God that creates the universe and its laws to get things started, but then bequeaths part of this power to beings created in his own image, at least with regard to their power to make physically efficacious decisions on the basis of reasons and evaluations.<sup>37</sup>

As we shall see, the account of the functioning of quantum free-will Stapp gives is close to that given by Mensky. And these views are consistent with Buddhist psycho-metaphysics. As the Tibetan Buddhist master Kalu Rinpoche said:

It is very important to understand clearly that although karma conditions our experiences and actions, we still enjoy a certain measure of freedom – what would be called free will in the West – which is always present in us in varying proportions.<sup>38</sup>

Both Buddhist and quantum versions of free-will operate within a limited domain surrounded by a larger domain of determinism, which in a Buddhist context is indicated by the term ‘karma’.

Such perspectives, however, are very distant from Carroll’s quantum-materialist worldview. At many points in Sean Carroll’s recent book *Something Deeply Hidden* I came across deeply flawed claims, and reviews of the book did not seem to pick them up, although the physicist Peter Woit does call out some of the ludicrous promotion for the book.<sup>39</sup> Woit refers to Carroll’s preferred viewpoint as “multi-worlds woo” and “multiverse mania”, and yet endorses the book! But in this book Carroll’s philo-

sophical incompetence is clearly on display, as when he tells us that:

... there are many aspects of consciousness that scientists don't understand ... the laws of physics are enormously better understood, and that understanding has been much better verified by experiment, than the functioning of our brains and their relationship to our minds. We might someday have to contemplate modifying the laws of physics to account of consciousness...<sup>40</sup>

This passage comes on the next page from the claim that "Consciousness arises from brains". Surely, anyone with a modicum of logical insight should see that if the state of research is such that we may "have to contemplate modifying the laws of physics to account of consciousness" at some point, then we clearly do not have a settled account of how consciousness 'arises' from the brain now. So how can anyone be absolutely sure that: "Consciousness arises from brains". There is a scarcity of logical coherence to much of what barely passes as philosophical-metaphysical analysis and claims in Carroll's work. But Carroll does tell us that:

That's quantum mechanics for you, where one person's absurdity is another person's answer to all of life's questions.<sup>41</sup>

Really? I thought we were doing science!

Such flaws, however, are by no means limited to Sean Carroll. Philosophical and logical flaws are easily found widely in the literature on quantum philosophy. We are not referring to the experimental details and mathematics here, but the subsequent conceptual-philosophical analysis and elucidation. And this especially applies where the subject concerns or involves consciousness. It seems that a great many physicists have a strange suspicion of, or even dislike of, consciousness. Many think it is actually a non-existent illusion, some say they do not know what it is!<sup>42</sup>

A lot of physicists think that consciousness has no right to intrude into the matters of physics and, even though it certainly *appears to be the case* that consciousness does seem to be implicated in quantum matters, many physicists believe that stern and serious steps must be taken to eliminate it. For example, Whitaker says of

the attitude of the great physicist John Bell, who was determined to assassinate quantum consciousness and reinstate complete ‘realism’ in physics at all levels, that:

Thus Bell and Nauenberg reached the conclusion that quantum mechanics is, at best, incomplete and they looked forward to a new theory in which events may occur without requiring collapse caused by ‘observation’ by another system. Observation in a sense relates to the consciousness of the being carrying out the observation, and the authors raised the question of whether a consideration of consciousness may have to be dragged into physics. However, they expected that physics will have recovered a more objective description of nature long before it begins to understand consciousness.<sup>43</sup>

Here again we find the ridiculous view, later enthusiastically endorsed by Carroll, that we can know that consciousness has nothing to do with quantum functioning even though we do not yet “understand consciousness”! There are a few worrying issues that this short passage raises: 1) there is clearly a preformed dogmatic assumption that consciousness should not be involved in quantum functioning, but what is the evidence or justification for this? 2) If consciousness is not yet understood by physics, how can there be a coherent demonstration of its lack of relevance for quantum physics? And: 3) is it actually true that no one understands consciousness? There are many convincing reasons to question this dogma! These are the kind of issues that need to be pursued rigorously, as they will be during the course of the following explorations.

When, on the other hand, we consider the works and worldview of the New Age Propheteers we leave the world of stern, assumed ‘no-nonsense’, ‘hard-headed’, anti-quantum-consciousness modes of quantum materialism, and we must confront the wild heady excess of the exuberance of Quantum New-Age spiritual fantasies. This is not to say there is absolutely no truth to many New-Age claims. There is a degree of truth within the ‘wild’ fantasies. But the problem is that the extent and nature of the truth revealed in quantum discoveries is often so exaggerated by New-Age Propheteers that the truth can easily get obscured in a distorting cloak of overblown absurdity.

The recent book by the New-Age quantum-mystical propheteer Paul Levy, *The Quantum Revelation: A Radical Synthesis of Science and Spirituality*, can be taken as a representative of the Quantum New-Age worldview, as it has received such a wealth of praise from the New-Age community. Levy's book, which has in some sections actually plagiarised my own work (actually cut and pasted - as fully documented in the last chapter of this book: *A Quantum of Plagiarism*), has been greeted by the New Age Priestess Jean Houston with the praise that it is "one of the most fascinating, evocative, and important books that I have ever read". But, as I show, in places in this book we find passages of ridiculous, perhaps childishly silly, exuberance, when Levy's 'creative imagination' starts 'running wild'. For example Levy tells us that:

When a physicist observes an elementary particle – which from the quantum point of view “causes” the particle to exist – it is as if the physicist is “dreaming up” the quantum entity in the same way that a dreamer dreams up their own dreamscape. At the same time (if we let our creative imagination run wild) it is as if the elementary particle is reciprocally dreaming, as it dreams up the physicist to observe it and hence, bestow upon it existence. The physicist and the subatomic particle are ... mutually dreaming each other up ...<sup>44</sup>

And this is written by a guy who claims that he is not one of the “New Age guru types (who) have jumped on the quantum band wagon”!<sup>45</sup>

This is certainly “imagination run wild”! Run, in fact, into a intellectual morass of absurd self-indulgence. A more rational account of the vital importance of the nature of electrons, which are fermions, for our existence is provided by physicist Sabine Hossenfelder:

Fermions are extreme individuals. No matter how hard you try, you will not get two of them to do the same thing in the same place - there must always be a difference between them. ... This is why electrons, which are fermions, sit on separate shells around the atomic nuclei. If they were bosons, .... they would instead sit together on

the same shell, leaving the universe without chemistry - and without chemists, as our own existence rests on the little fermions refusal to share space.<sup>46</sup>

As Hossenfelder says: “Helium atoms don’t get hungry and are just as well tempered on Monday as on Friday”.<sup>47</sup> She might have added, for good measure, the fact that electrons do not go to bed at night, do not dream, and certainly do not dream up physicists who then dream up the electrons who then dream up physicists etc. etc.

Other ludicrous, over-inflated, bordering upon, perhaps tipping over into, the realm of the delusional, claims made by Levy include:

- “The double-slit experiment gave an incarnate birth to the field of quantum physics. It was as if the physical world (i.e. matter) took the form of an experiment so as to transmit the quantum nature of reality into our minds”<sup>48</sup> This is not true - the photo-electric effect was the instigating experiment. And experiments, even quantum ones, do not give “incarnate births”, even metaphorically. One might have thought that the notion that the material world decided on its own account it was time to reveal its quantum nature to human beings is surely too absurd even for the most intrepid New Age fantasy-merchant, but apparently not!
- “The insights of quantum physics ... are like a metabolic antitoxin designed to dissolve the calcified complex and restore elasticity to the psyche ...”<sup>49</sup>
- “Quantum physics is the flag bearer of an epochal paradigm shift currently taking place within human consciousness, deep within the collective unconscious, concerning the nature of reality itself.”<sup>50</sup>
- “As if ‘bewitched’, we entrance ourselves by our own innate, unrealized genius for cocreating reality. We are powerful wizards welding a magic wand (the quantum).”<sup>51</sup>
- “The revelations of quantum theory are a modern day version of an occult-like secret ...”<sup>52</sup>
- “How the world of the quantum manifests depends on how we dream it.”<sup>53</sup>

- “Quantum mechanics was like a Kabbalistic secret that God revealed to Bohr ...”<sup>54</sup>
- “Like a precious treasure thirsting to be brought forth, the mysterious place where the quantum abides waiting to be discovered is ultimately within our own minds.”<sup>55</sup>
- “... to the person on the street ... there are not enough words in the entire universe to do justice to the quantum state.”<sup>56</sup> (This is utter nonsense! - There are not enough words in the entire universe to describe just how ludicrous this assertion is!)
- “The emergence of the quantum is like the discovery of the mythic Holy Grail...”<sup>57</sup>
- “The Matrix control system has co-opted the powerful liberating knowledge of quantum to use instead for its own power-based agenda.”<sup>58</sup>
- “Like the evil god-mother in “Sleeping Beauty”, the Matrix keeps the liberating quantum gnosis asleep and under its control.”<sup>59</sup>
- “It is therefore up to us to cast a ‘counter-spell’ and help to wake up the Sleeping Beauty of quantum physics by liberating it from the confines of an impoverished paradigm ...”<sup>60</sup>

As previously indicated, this kind of, sometimes almost infantile, anti-intellectual indulgence, so absurd that it becomes a parody of itself, leads physicists with a more rigorous set of mind to lose patience, with good reason. Thus the theoretical physicist Jean Bricmont, in his book *Quantum Sense and Nonsense*, writes of this kind of over-indulgence:

The mysterious character of quantum mechanics has led to numerous abuses, misinterpretations, speculations and extrapolations, perhaps more than any other scientific theory. It would take an encyclopedia to cover all of them ... We have seen the two “mysteries” of quantum mechanics concern the role of the observer and actions at a distance. A third alleged “novelty” supposedly introduced by quantum mechanics is the death of determinism. Almost all the abuses or invalid extrapolations of quantum mechanics rely on one or more of these ideas.<sup>61</sup>

In another book, *Making Sense of Quantum Mechanics*, at the start of his first chapter ‘Physicists in Wonderland’, Bricmont opens in scathing humorous mode when he refers to a *Le Monde* article “Quantum Rugby” which covered a public conference between the famous English rugby player Johnny Wilkinson and two French physicists. Wilkinson had made the claim that he had been “saved from depression” by engaging in the study of quantum physics. Bricmont writes:

If what Wilkinson understood of quantum mechanics is uncertain, one can reasonably be sure that nobody would claim to have been saved from depression by studying any physical theory other than quantum theory.<sup>62</sup>

One can only speculate what Bricmont would think were he to come across Levy’s claims that ‘the quantum’ was a “magic wand” or comparable to “the Mythic Holy Grail”!

Bricmont also writes that: the majority of physicists:

...do not accept the notion of a consciousness totally independent of the brain. Besides, even if one were to accept the idea that mind, independent of the body, intervenes in the collapse process, there is nothing whatsoever in quantum mechanics to suggest that our conscious choices affect the collapse of the wave function one way or another. So there is no reason to take seriously this sort of link between consciousness and quantum mechanics.<sup>63</sup>

And here Bricmont highlights the central issue, which is the fact that a central claim of the quantum-mystical propheteering brigade is that “our conscious choices affect the collapse of the wave function one way or another”, as if we can decide to project consciousness beams into the quantum realm at will. Bricmont, who seems to be a rabid anti-quantum-mysticism activist, is not saying there is absolutely no evidence whatsoever for a connection between consciousness and quantum functioning, he is saying, perhaps, there is a tiny implication of connection, but, if we were to accept the existence of such a connection, there is no evidence that consciousness can directly ‘choose’ which possibility it wants to ‘collapse’ into reality, so to speak. There is no evidence that individual consciousness can choose at whim which quantum possibility it wants to bring into reality.

In the light of the actual quantum evidence, Levy's claim that physicists can be thought of, even if only metaphorically, as dreaming-up elementary particles by beaming intentional rays of consciousness at the quantum ground of possibilities, thus producing elementary particles which then in turn start dreaming-up the observing physicist is absurd, ludicrous, laughable, and destructive to serious discussion. Such ill-considered Quantum New-Age absurdity is precisely why serious physicists and philosophers are unlikely to treat Quantum New-Age Prophets with much in the way of credibility. And yet, a list of New-Age worthies have lauded Levy's work as a "masterpiece", and similar over-inflated praises. Jean Houston suggests that Levy's book is worthy of being compared as a twentieth century Dante's *Divine Comedy*. One can only say that in some sections it is certainly a kind of comedy, as well as plagiarism, but it is far from divine!

The reader may think that I have only arrived at such a negative view because Levy has plagiarised my work in some sections of his work. However, this is not the case, the work would certainly have these faults without the theft of my hard-won insights (which Levy has not fully understood). The fact of the casual plagiarism is indicative of the deeper fact that Levy's intentions seem to be more about self-promotion and showing-off to the Quantum New-Age community, than it is about serious research and understanding. Serious research and understanding is concerned with presenting carefully considered and carefully presented evidence and arguments, carefully marshalled evidence and arguments which can be taken seriously by intellectual opponents, rather than flinging together silly metaphors which will make serious scholars in the field simply dismiss the claims made, because of their absurdity.

The fact that so many New-Age Propheteers think that Levy's work is a masterpiece that must have been mystically channelled from an ascended master of the most elevated wisdom, and the fact that none of the overawed reviewers I contacted, to point out the plagiarism, thought it worth replying to me, does not paint the Quantum New-Age Movement in a very ethically positive aura!

So, this is the situation in this scientific-philosophic arena of research, exploration and discourse. There are two apparently

widely separately worldviews, both adopting extreme positions, positions which can be shown to be based on false assumptions, false presuppositions and dogmas, faulty reasoning, misrepresentation of evidence due to personal preferences, misunderstandings of the evidence, overblown statements, and so on. But by shifting and winnowing through the evidence presented and claims made by both sides, it is possible to reach a middle ground of truth which indicates that the process of reality does have a source in an immaterial realm of potentiality, and that the apparently material world is constructed over vast time periods, constructed by a deep level of primordial awareness operating through quantum potentialities. Each sentient being embodies, to various degrees, a glimmer of primordial awareness as individuated consciousness, and there are 'spiritual' techniques for aligning human consciousness with deep levels of primordial awareness.

There are, also, people, who, on the basis of limited spiritual attainment within the context of this spiritual worldview, consider themselves to be, and set themselves up as, spiritual teachers. And, it seems that often such people operate, to various degrees, more like spiritual fraudsters, using esoteric knowledge for their own purposes and advancement; perhaps reminiscent, to some degree, although certainly less overtly threatening, of Wild-West fake-preachers as depicted in the excellent and disturbing 1955 film *Night of the Hunter!*

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54 Levy, Paul (2018), 292 - This is actually a quote from Scott Aaronson - 'Are Quantum States Exponentially Long Vectors?' - (are.dvi (scottaaronson.com)) - Levy is actually misrepresenting this quote. In Aaronson's article the quote is an ironic joke, not a serious claim! See the final chapter in this book - A Quantum of Plagiarism.

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