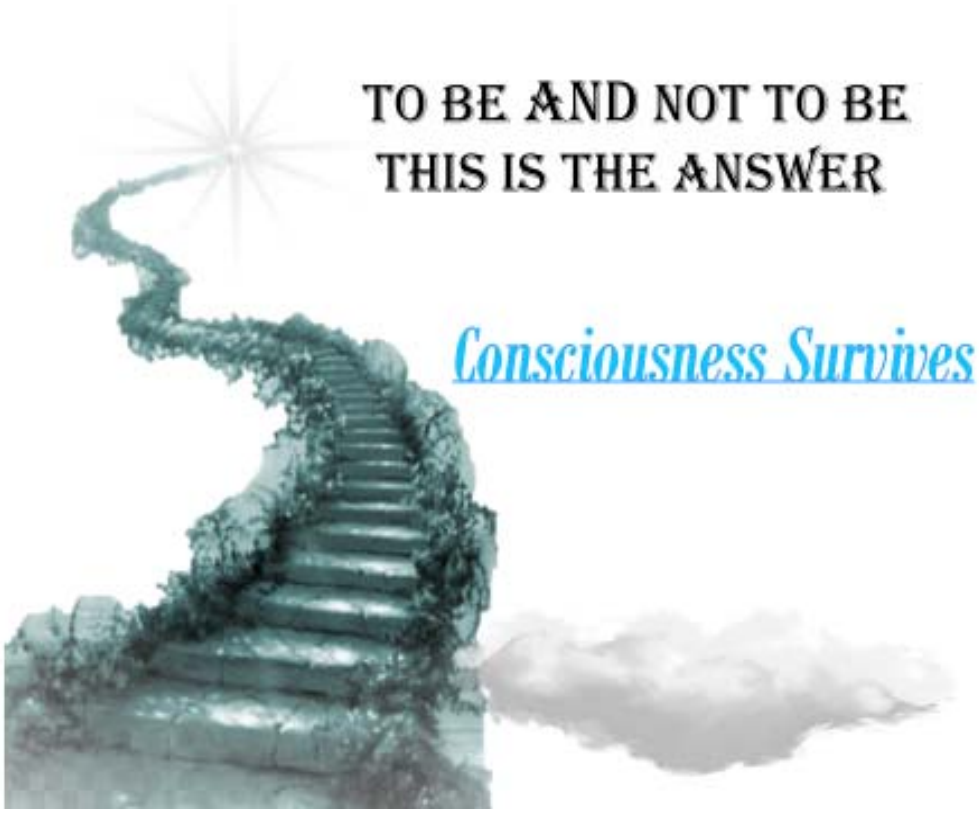

Essay submitted to the BICS essay contest 2021,

Best Evidence for Afterlife

TITLE:

"To Be And Not To Be. This is The Answer:

Consciousness Survives"

BY:

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Dr Vasileios Basios,
Martin Redfern.

"E quindi uscimmo a riveder le stelle"
"And then we went out to see the stars again"
– Dante Alighieri Divine Comedy,
Inferno, Canto XXXIV

ABSTRACT

In this essay we will consider what constitutes good, admissible evidence for the afterlife. We summarise and review the extensive literature on the subject and add some unpublished evidence of our own. In order to make sense of that evidence and place it on a firm, scientific footing, we use accepted frontier physics, quantum, theory to propose a mechanism whereby, at death or even at other times, our consciousness can vastly expand and connect with a dimension of no time and no space where it has access to 'all knowledge'. We propose that our brains and bodies just 'filter out' a subset of that awareness into our everyday lives.

This essay is the fruit of our common mind on the big question of the afterlife. We imagined a court where our case can be heard and were reminded of the urgent need for a new kind of science, bridging inner and outer realities.

Credits:
Frontispiece: Art work by Markus Oellers; "stairway to heaven – rainbow rest"; available from "pngitem.com" (www.pngitem.com/middle/wJRRow_hd-stairway-to-heaven-png-download-rainbow-rest/).
Illustrations: All comics, drawings and adaptation of images attributed in the text are common work by the authors.

1. INTRODUCTION

OPENING REMARKS:

There is evidence from the whole of the history and much of the pre-history of the Human species of concern for death, respect and reverence for the dead and belief in some form of afterlife. It is an issue central to human thought and culture. But is it something based solely on hopes, fears and beliefs or can we find firm evidence for continued consciousness after bodily death?

This is not a question that lends itself easily to objective experiment or conventional scientific enquiry, so in this essay we are presenting our evidence as we might to a judicial review that accepts the test of it being 'beyond reasonable doubt' rather than scientific proof. In order to give 'reasonable doubt' a chance, we will allow our expert witnesses to be cross-examined with some sceptical questioning.

Let us consider the wording of the question before us:

What is the best available evidence for the Survival of Human Consciousness after Permanent Bodily Death?

It seems a simple enough question, but to make sense of it, we need to have a clear idea of what is meant by some rather slippery concepts:

1. What constitutes '*evidence*'?
2. What is '*Human Consciousness*'?
3. What is inextricably tied to bodily life?
4. What is meant by '*Survival*' and '*after*'?

1 EVIDENCE

The traditional scientific method involves developing a hypothesis based on observations and then testing and refining it through experiment. A good hypothesis should be falsifiable through such tests and, if it has not been falsified, should lead to predictions which can themselves be tested. Ideally, those tests should be repeatable. It may never be possible to prove a hypothesis absolutely, but if it makes testable predictions that are then upheld by experiment or observation, it becomes the accepted theory. (Encyclopedia Britannica, 2021; Hepburn & Andersen, 2021; Gower, 1997)

Unfortunately, most of the evidence for the survival of human consciousness comes from personal witness statements, of those dying, of those near to them or of those left behind. As such it is hard to test and not ethical to repeat. Even in a court of law, where witness statements are acceptable, the court must ask if the

witness was of sound mind at the time, and being brain-dead or comatose may not qualify!

Nevertheless, we will show that, through their quantity, quality and similarity, such first-person experiences - and some third-person observations - add up to compelling evidence. And science is slowly becoming open to the use of large data sets ('omics') as valid evidence. (Editorial, Nature Methods 2009)

2 HUMAN CONSCIOUSNESS

The nature of consciousness, the mechanism by which it manifests in the brain, and its place in the universe are unknown. Consciousness implies awareness - both of a subjective, external world and of an internal entity we call the self, with feelings, choice, memories, language and thought (Velmans, 2009).

There are those who say that consciousness is 'nothing but' brain activity. And of course it stops when you die and your brain decays. (Dennett, 1991; Koch & Crick, 1990)

Some follow the dualistic ideas of Descartes and believe consciousness to be something separate from the body. As such its nature is a matter for religious belief and therefore outside the realm of scientific enquiry. (Rosenthal, 1986)

Others, notably Penrose & Hameroff (1996; 2014) have shown that our minds have access to computational powers that lie beyond what is possible using classical physics. They suggest that quantum processes, perhaps in the microtubules in neurons, achieve 'orchestrated objective reduction' - essentially tapping into quantum physics - and that consciousness comes as a result.

Some go further and suggest that consciousness is not uniquely human but that it is a fundamental property of the

universe, underlying everything. (Panpsychism) (Kouider, 2009; Goff et al., 2020)

We will return to the question of what might survive in our summing up, but without a body in which to locate, it seems that it must be transcendent; more like a 'field' and less like an individual anchored in time and space by senses and memories.

3 BODILY DEATH

For some aspect of us to survive bodily death, it must of course not be part of the body, which decays. So what aspects of us are dependent on the physical body?. Most obvious, perhaps, are the senses. Tests in dark, silent flotation tanks suggest that you begin to loose your sense of time and place. It can be a relaxing, de-stressing experience for an hour, but where and when will you be when the senses turn off permanently?

Galileo, Descartes, Locke and many others have distinguished between the primary, measurable qualities such as wavelength, temperature or chemical composition and the secondary, experienced qualities such as colour, warmth or smell (Goff, 2019; Ross, 2015). Many materialist scientists have tried hard to reduce the secondary qualities to aspects of the primary, measureable ones, but with limited success. Can perception exist without senses - or even without a perceiver? As we will see in the discussion in Chapter 6, we suggest that, through an understanding of non-duality, it can.

Memory too - or aspects of it - seems to reside in the physical brain. So what are you without your memories? Are you still 'you'? Even thought itself seems to have at least correlates in the neuronal activity of the brain. But that is not to say that thought is 'nothing

but' neuronal activity, any more than a TV programme is nothing but the electrical activity in a TV set.

4 LINEAR TIME AND SURVIVAL

The physicist John Wheeler once quoted the old saying "Time is nature's way to keep everything from happening all at once", and Leibniz's dictum "...time and space are not things, but orders of things…" (Wheeler, 1990);

We seem to be dominated by the unavoidable flow of time. There is never enough of it, we can never travel backwards through it, and only forwards at its own, unrelenting pace. But that impression is based on two assumptions: That time is linear and has a direction, and what we focus on when assigning an identity that exists before or after. As we will show, both of these assumptions are rooted in interactions with an external environment. Yet in physics time is a much more fluid concept and, according to Einstein, it's part of 'space-time' and speeds up or slows down depending on how fast you are travelling.

That, in turn, makes the concept of survival ***after*** bodily death more complex and possibly meaningless. If what survived was massless, it could travel at the speed of light and seem, to it, to be able to cross the Universe in an instant. If it fell into a black hole, time for it would seem to continue, but for those left behind, eternity would have passed. So, though we hope to provide compelling evidence that we are not restricted to our physical bodies, we may need to stretch the concept of '*after*' our death.

We will address the demonstration of the existence of an afterlife using the analogy of a judicial enquiry, addressing the concepts of identity, the human machine, interfaces and filters,

collective consciousness and information through different points of view and aiming to identify the evidence that allows us to provide clues or proofs.

There have been dozens of books and hundreds of papers detailing evidence for an afterlife. While we will summarise or reference many of these, we will not simply repeat them. What we aim to add is a credible hypothesis for a mechanism that should support the evidence, lead to paradigm shift in science and in our understanding of the nature of Consciousness.

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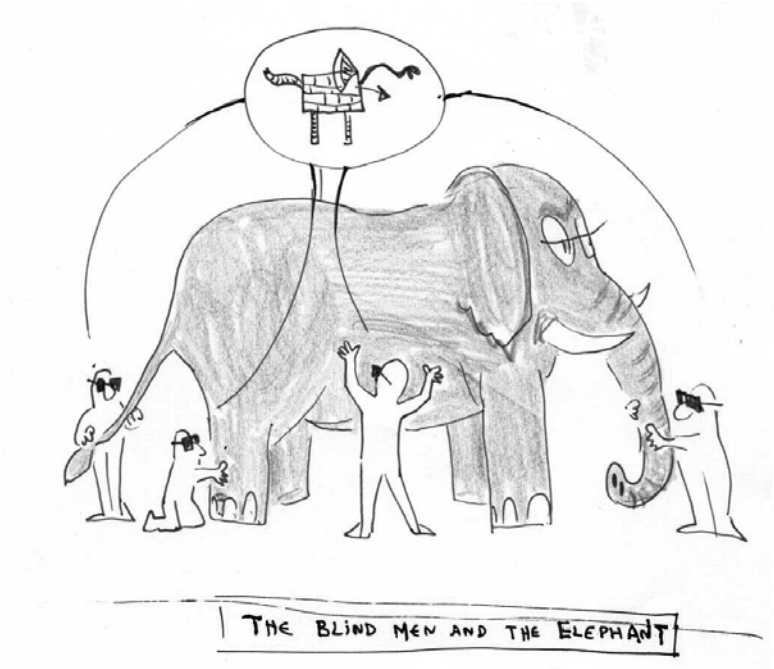
2. What is an evidence-based process?



“Stand up, the judges enter the court!”

"Honourable Advocate for the afterlife, please call your first witness."

In this session, before we start reviewing witness statements, we would like to look at the nature of evidence. So we call physicist Dr Pier Francesco Moretti:

“Dear honourable colleagues, today we are here to debate the existence of the afterlife and to identify evidence for this. I do not see or hear in this room any dead people, even if I always feel my father looking at me in these challenging situations.

So let us reflect on what could be an evidence-based demonstration for the existence of an “afterlife”.

In order to adopt commonly accepted scientific methodology, we need to focus on the concepts of “after” and “life”. We need to define time, and implicitly its unidirectional flow so that we can identify a before and an after.

We also need to agree on what we mean by life, at least in this context. We agree that our bodies stop functioning as a network of atoms localized in space when we verify the absence of breath, heart beat and cerebral activity. We are speaking about the identity of an individual that is incarnated in a body capable of interacting with other material entities during a period of time, and we call this period of interaction "life".

Afterlife therefore refers to the existence of such an identity after an event that has caused that body to loose its capability to interact any longer with the same modality.

The existence of this identity should, ideally, be measurable. However, we do not have, at the moment, any instrument capable of detecting the presence of a dead identity directly: we always detect the interaction of matter with other matter, or energy (Mossio & Moreno, 2010)(Mossio, 2013).

If we adopt commonly accepted scientific knowledge, we cannot "demonstrate" any "afterlife" with an experiment. I want to be honest when referring to commonly accepted scientific knowledge. Let me use famous examples as follows.

Did humans walk on the Moon? We know that that event has changed many things in human history, but can we "demonstrate" it really happened?

If we point a powerful laser on a specific location on the Moon, the light will be reflected by a mirror positioned there by astronauts. We also have kilograms of rocks brought back and demonstrated to be of lunar origin through careful and accepted analysis. In the 1960s we had no robotic technologies to undertake such activities.

The other example is much more conceptual.

Is the Sun at the centre of the solar system, or is the Earth?

We all know that for centuries no one had a problem with the Earth being at the centre and the Sun rotating around it. Then, new technologies introduced greater accuracy in measurements of positions of stars and satellites. These were better explained if framed in a Sun-centred system. It proved to be a simpler, more useful theoretical framework capable of making accurate predictions. But any human, waking up in the morning, sees the Sun rising and appearing to rotate around us. Similarly, the commonly accepted scientific knowledge is mainly driven by the objectives and the use of that knowledge.

Let me conclude with a reflection. We sometimes believe in concepts assumed to be true. Often we forget the assumptions they are built on. We also neglect other theories that have the same right to be considered. The reality is that some theories are more fashionable. We are not saying that the Earth is flat, but that the Sun can be considered as rotating around the Earth for many applications.

Kepler and Giordano Bruno said similar things, but they used different arguments and in different historical contexts. One of them was burned. This modern era is now dominated by scientific methodology that requires specific, rigid rules to be fulfilled when referring to an evidence-based affirmation. Perhaps it is time to look again at these rules and the assumptions behind them (Bouratinos, 2018) ("Galileo Commission Report", 2019).

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3. Beyond the Brain

Advocate for the afterlife:

"Before we can make sense of the idea of Consciousness continuing after death, we need to look at evidence for aspects of consciousness, mind or knowledge extending beyond the physical brain.

So we call neuropsychiatrist Dr Peter Fenwick as an expert witness.

Dr Fenwick, what evidence is there that 'mind' extends beyond the brain?"

Peter Fenwick:

Let's look at Consciousness as a 'Field Structure' and start with precognition. A precognitive experience is one in which you get knowledge about an event which has not yet happened. It may be something quite trivial, sometimes it carries important information though this is not always recognised at the time.

There are many accounts of premonitions of dying occurring to people who subsequently met their death. After the Aberfan

catastrophe, in which a colliery slag tip collapsed over a small Welsh village, burying the school and killing over 100 children and their teachers, several people claimed to have had premonitory dreams of the disaster. One particularly sad story is that of ten-year old Eryl Mai, a pupil at the school, who told her mother, two weeks before the disaster:

> "*Mummy, I'm not afraid to die,"* and added "*I shall be with Peter and June,"* (two of her school friends). The day before the disaster she said to her mother "*Let me tell you about my dream last night. I dreamt I went to school and there was no school there. Something black had come down all over it!" (Dossey, 2010)*

Dreams of disaster are relatively common, and can usually be dismissed as due to general anxiety, or simply coincidence. But a few, like the one described above, are so specific that it is hard to dismiss them. Here is another:

> *"My third daughter was just seven years old, when I woke up in the morning totally upset and in mourning over her death. I was so surprised and confused to see her lying next to me that I actually gently nudged her to see if she was alive. She had apparently gotten up during the night and climbed in next to me. When she moved I cried uncontrollably with relief. She was not dead and I hugged her. I did not tell her I thought she was dead. I could not remember any dream but the feelings were so strong and real, exactly as they were two days later when she was the victim of a hit and run." (Santana Santos & Fenwick, 2012)*

Premonitions suggest that our access to a line of time is not always limited to the present moment, but that we may occasionally get access to the future. And if this is so, then we have to ask whether consciousness is more a field structure than being created by the brain as reductionist science suggests.

Transmission Theories

We've been assuming that everything is created within the brain. An alternative view is that everything is transmitted through the brain.

William James was one of the strongest exponents of transmission theory. He described in his 1897 Ingersoll Lecture (James, 1898) the idea that beyond the 'veil of reality' in this world, and particularly beyond the brain, there is a transcendent reality in which the soul may live. He argued that this beam of consciousness is transmitted through the brain which modifies it. Sense data is transformed by the brain for transmission to an external mind. Mind in its turn can will an action which is transmitted to brain and so is able to initiate brain processes and thus actions. Although memories are held partly within the brain, a large part of memory is stored external to the brain, and in this, personal identity is located.

The attraction of transmission theories is that they allow for the concept of survival of personal identity after death, and thus give a meaning to life beyond the purely biological and cultural. They try to explain something that many people feel intuitively - that human beings, besides being individuals, are part of a greater whole. But once again we come up against the difficulty that at present there is no known mechanism which would link brain to mind in this way, or which would allow memory to be stored outside the brain.

Sir John Eccles, one of last century's most distinguished neurophysiologists and a Nobel laureate, also suggested that there is an interface between brain and mind. Here the 'dendron' (a hypothetical region of the nerve cell processes of the brain) links with the 'psychon' (the hypothetical atom of mind) (Eccles, 1990; Eccles, 1994). However, so far nobody has managed to identify dendrons or psychons, so the theory remains just that, a theory.

Field Theories

The theory of morphic resonance is biologist Rupert Sheldrake's attempt to explain how memory might exist independently of an individual brain, and could be accessed by other brains. He postulates the existence of 'morphogenetic fields' (Sheldrake, 1981). A morphogenetic field is part of the structure of the universe, existing everywhere at once. It is possible for matter to be influenced by this field at the same time in widely separate areas. He suggests that information relating to a pattern of behaviour can be transmitted from the brain to this field. The transmitted information modifies the field and the field in its turn modifies other similar brains so that they become more likely to reproduce this particular piece of behaviour. He uses this morphic resonance theory to explain, for example, how it is that when rats in one part of the world learned to run through mazes, other rats in other places seemed to acquire this ability simultaneously, and why scientists working in different places and not in contact with each other often tend to make the same discoveries at more or less the same time. Dr Sheldrake believes that experiments which he and other workers have carried out have produced some evidence for his field theory, (Sheldrake 2009) but so far the scientific world is not convinced.

Could Field theory explain telepathy?

Another field theory was postulated by Jacobo Grinberg-Zylberbaum, whose mysterious disappearance in 1994 has never been solved. He proposed that consciousness is not a product of brain activity, but that we are recipients of a general consciousness, to which we connect as if it were, to a human internet. His theory suggests that the electromagnetic fields which are produced in the brain by nerve impulses in some way interact with the fabric of space. (Grinberg-Zylberbaum, 1981) This interaction allows the transmission of an effect from one brain to the next. However, the transmission is strongest when the two people are in similar states, for example in people who have strong empathic feelings for each other or who have meditated together. He has produced some evidence in support of his theory, as he showed that the response of one brain to tone pips or light flashes could be transmitted to another brain, suggesting that information could be transferred directly from brain to brain between empathic individuals.

This theory certainly suggests that mind can influence activity in the world beyond the brain, but in its present form it offers no explanation or evidence for the existence of memory beyond the brain. There are other field theories which postulate a remote but constant link between minds. Jung's concept of the collective unconscious is one such. (Jung, 1968). Jung suggested that part of the mind exists beyond individual brains and is a reservoir of human experience inherited from ancestors, independent of time and place (Jung & Pauli, 2014). This would certainly be an explanation for the fact that the same images (archetypes), crop up again and again in NDEs, dreams, religions, myths and fables. Jung's theory might provide an explanation for this story I was told by a Japanese woman.

Shortly after the death of her mother she dreamt that she was standing in the middle of the river, on the left bank of which stood her father; on the right, her mother. Her mother beckoned to her father to come across and join her. But he did not, and finally, she turned and walked away.

In Japanese Buddhism the symbolic divide between this world and the next is a river. There has been some research into Japanese near-death experiences, and as might be expected, the river is a recurring motif in many of these. However, this woman had been brought up a Christian, and at the time she had her dream she had no knowledge of Japanese Buddhism, and no memory of ever being told about the symbolism of the river.

So here, once again, we have an appealing theory, but with the insurmountable difficulty that there is no way known to science by which memory can be held anywhere except within the brain.

If we accept the subjective experience of the people who gave these accounts, then we have to accept that what happens to the dying person can in some way affect those around them; that a Near-Death Experience (NDE) can sometimes be a shared experience rather than just a personal one. One mind seems to be affecting another mind directly - and this is not something that can be accounted for by any of the scientific theories we've looked at so far. We have to look for some quite different theory of mind.

Evidence for Nonlocality of Mind

The first possibility is that mind may have a non-local effect - an influence beyond the brain, mediated by some physical principle not yet defined by science. This would mean that brain processes can affect, at a distance, other minds (telepathy) and physical matter (psychokinesis, or PK).

Recent work in the area of parapsychology has produced results which, if they are confirmed, might provide some persuasive evidence for non-locality of mind The most convincing are the Ganzfeld experiments (Radin, 2011), which have examined mind-reading ability in a state of sensory deprivation and Bob Jahn's set of experiments in Princeton's University PEAR Lab , which have shown the ability of minds to influence a random number generator, or to affect the way balls fall in a large pinball machine. (Jahn & Dunne, 2005a; Jahn & Dunne, 2005b; Jahn & Dunne, 2009) None provided full proof, but they were taken seriously enough for other researchers to try to replicate them (Carter, 2012; Broderick & Goertzel, 2014).

Wackermann et al (2003) investigated the correlations between brain electrical activities of two spatially separated human subjects and found that such correlations may occur, although no biophysical mechanism is known.

Fenwick (2019) investigated the claims of Alain Forget, a philosopher who has spent years in meditation. He discovered that he could radiate energy in the form of light to his students and that they saw light surrounding Alain while he was giving it.

Fenwick et al (2018), conducted a hyperscanning EEG experiment to see whether, when Alain gave light, his student's brain was affected, even if he did not know light was being transmitted. They discovered that, although a group of people could see Alain's light, no camera could record it. When giving light, Alain's brain showed a totally different pattern of activity, with frequencies stretching up to 100hz, the limit of the measuring equipment. At the same time, the student's brain, even though he did not know Alain was giving light, showed responses as well. Of interest is that on Facetime, Alain's light, when viewed by 100

people from all over the world, could be seen by 75% of them, and was very strong in about 30%.

In summary, they found clear evidence that there were unusual electrical and metabolic changes in Alain Forget's brain which correlated with the giving of the light energy. And that this energy was able to affect other brains. This suggests that the linking of brain activity may provide a physiological basis for altering another person's brain function, and might form the basis for an explanation of parapsychological phenomena such as telepathy.

Wider theories of consciousness

If consciousness is only the mechanical functioning of neuronal nets it can never be non-local. A recent step away from that reductionist position was suggested in a paper published by the Royal Society (Schwartz et al. 2005), . The authors, argued that the reductionist mechanical science which assumed that causality within the brain was fully determined by the movement of small Newtonian particles, atoms etc., is now over three-quarters of a century out of date. It has been superseded by the application of quantum mechanical theories of brain function. These follow the mathematics of von Neumann who argued that both the physical world and the conscious world must be considered when looking at a quantum mechanical system (von Neumann J., 1955).

Schwartz et al argue that the brain is a quantum mechanical system, not only because the neuro-transmitter junctions are susceptible to quantum effects, but because the von Neumann view of the world stretches from the level of the individual molecules of neurotransmitter to include the whole brain and the mental processes that occur within it. They showed very clearly that mental processes and the mental (social) context in which the brain is

embedded are causal agents in their own right as postulated by von Neumann's theory.

The brain contains two domains, both causal, von Neumann's Process 1 and Process 2 – those conscious processes, such as thoughts, feelings, beliefs etc, would come to bear on the pure quantum system and are causative in their own right.

Thus at one stroke consciousness takes its place in its own right in any theory of how the brain works. The matrix of meaning in which the subject is embedded - culture, family relationships and so on - now extends brain function well beyond the physical brain.

Schwartz et al show the causative effect, of conscious processes very simply and elegantly. They point out that a placebo may consist only of chalk and is inactive when taken by mouth. However, if subjects with Parkinson's disease are told that it is a powerful anti-Parkinson agent and will improve their walking, then they do indeed find that their Parkinson symptoms alleviate when they take the chalk pill. They move more easily and MRI scans show an increase in dopamine, the neurotransmitter in which they are deficient. What this paper showed is that it is not possible when just looking at brain processes, to explain their form and nature only by other brain processes, e.g. from the reductionist point of view.

Multidimensional theories

So consciousness and the cultural setting have to be taken into account when addressing the 'hard question' relating to consciousness. When we die it is clear from accounts of the dying that the transcendent role of consciousness is primary, particularly in the movement of the dying into an alternate reality, composed of love and light which is not situated in this physical world. [See

Chapter 5 of this essay] It is truly transcendent but it is only detected by consciousness itself. If we are to ask about the location of the dead relatives, the dying would answer that their location is in the domain of transcendence. So the question now becomes, where is this domain?

There are a number of theories in physics that postulate reality cannot be contained in space and time alone. It has been suggested by the astrophysicist Bernard Carr (Carr, 2007) that the world is in fact a five-dimensional matrix and that it is within the fifth dimension that these conscious experiences are stored. Randall & Sundrum, (1999) extending Kaluza-Klein theory, also use a five dimensional model to explain the phenomena we find in dying and David Lawton, who has studied near death experiences, (Kean, 2017) has also argued for a five dimensional structure for NDEs, and suggests that "death is simply the withdrawal of the 4-D part leaving the 5D intact" (Kean, 2017). So it will only be available to the four-dimensional brain on occasions when the structures within the brain weaken and allow it. This is certainly true for the experiences reported during cardiac arrest and as described by Pim van Lommel in Chapter 5 of this essay.

There are other features of the dying process which fit neatly into a five-dimensional explanation of reality, for example the alteration of time as shown by premonitions and in the appearance of dead relatives. Light surrounding the body and shapes seen leaving the body, which do not seem to be physical, would suggest that momentarily, at the time of death, these energies can be sensed by others present in the room of the dying. Alteration of space and linking together of minds are shown by deathbed coincidences, in which the dying establish a link to someone they are emotionally close to. It goes some way towards explaining

physical phenomena such as mechanical malfunction, or the stopping of clocks.

Biocentrism and Beyond

Biocentrism was first proposed by Dr. Robert Lanza in 2007. Dr. Lanza is an expert in regenerative medicine. His theory of biocentrism consciousness as fundamental to the universe (Lanza & Berman, 2016). It is consciousness that creates the material universe and not the other way round. Therefore the death of consciousness simply cannot occur.

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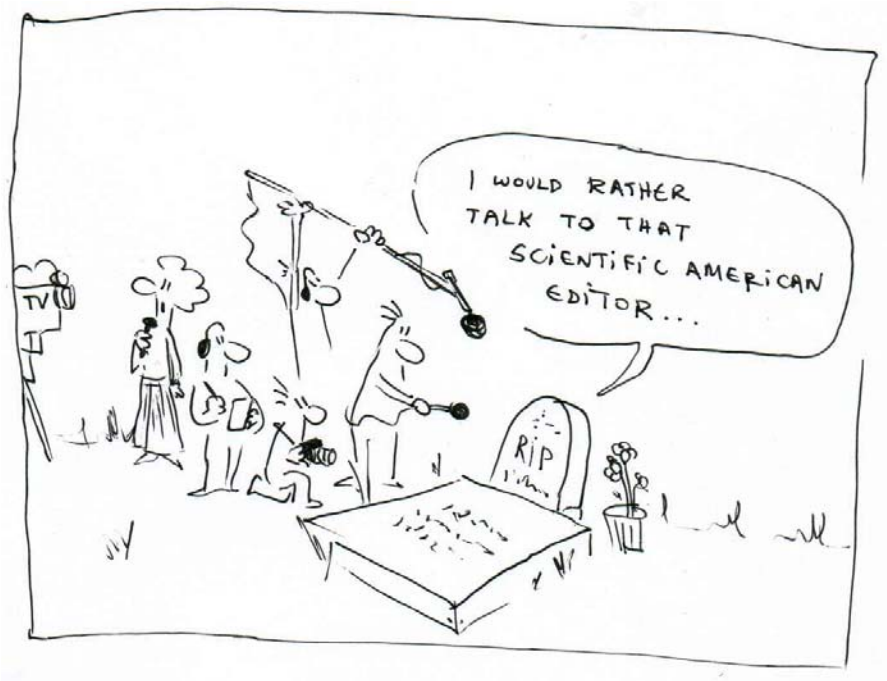
4. After Death Communication



Advocate for the Afterlife:

"We will now hear evidence that the dead are able to communicate with this world. Communication with the dead gives many of the bereaved comfort. They accept that the person they love has not simply ceased to exist, and that they are all right. We call Dr Peter Fenwick to resume the stand to discuss the ways in which this communication can occur and the varying forms it can take."

What happens when you die?

Is there a transcendent component to the human being; a spirit locked in which can be released at death? It is an ancient idea, but there are many present day accounts of apparent direct communication between people who have died and those they have left behind. The accounts almost all occur within two or three days of the death, as though there is a transition period before the 'spirit' of the dead leaves the consciousness of the living entirely.

"My father died on the 30th April 1989 .. I could not go to the funeral because I was nine months pregnant. My son was

born on the 17th May 1989. Three days later around 3 a.m. my father actually came into my room – I saw him fully. I even remember sitting up in bed because I did not think he was real. He walked over to the cot and looked at my son and smiled…. nodded his head in approval and left. It was a wonderful experience." (Fenwick & Fenwick, 2008)

One obvious explanation for some of these visits is that they are simply hallucinations. So the following accounts are particularly interesting because they seem to have been experienced by two family members simultaneously.

"My father suddenly died in August 1998.... One night in a dream my father appeared, looked alive and well and told me that he was fine and happy and staying with his uncle. Since that night I stopped having bad dreams about him and was able to let him go. But the most surprising experience came when my sister told me about her bad dreams about our father's death, that stopped when one night our father appeared in her dream, and said that he was fine and happy and staying with his uncle. She was telling me exactly the same thing that happened to me. (Fenwick & Fenwick, 2008)

This is another account of such a strange 'coincidence', told us by a man whose two year old son had died in 1998, accidentally drowned in a neighbour's pond.

"In the early hours of Tuesday morning I woke up…. I could see a shadow of a baby's face looking through the window, I knew it was Matthew. Later I heard a rustling noise (like the noise of a baby walking and his nappy rustling). The noise started near the door and moved across the foot of the bed and up towards my wife. I was reluctant to open my eyes (I was scared, to be honest) but when I did there was nobody there.

I didn't mention this to my wife at first as I didn't want to upset her; I told her a couple of days later. She said she had heard exactly the same thing as me, which freaked us both out a bit. Both of us heard the same thing but did not want to mention it in case it upset the other.

Now, Matthew had been doing this for quite a while before he died. He would wake up in the early hours, come into our room pat the foot of our bed and up Janette's side, and we would hear his nappy rustling. …One of us would take him back to his own bed later and tuck him in.

I was always a bit sceptical of these stories…. It's only my own experiences that have made me question what happens when people pass on. It can be a bit daunting mentioning it to other people for fear that they will think you're crackers." (Fenwick & Fenwick, 2008)

Mediumship

Even long after death, communication between the dead and the living seems possible, through an intermediate interpreter or communication channel. One of the first people to experience and write about these phenomena as unrelated to religious belief was Edward Brackett, in his 1885 book Materialised Apparitions .

The Scole Experiment

The Scole experiment which took place at the end of the 20th Century, set out to see if mediumistic information was due to fraud or genuinely came from spirits. It was carried out by senior members of the Society for Psychical Research in England, who studied a group of four people and two mediums, known as Robin Foy's group, at the Scole farmhouse. Every possible precaution was taken. Their controls were numerous, and lights were attached to the mediums to prove that they did not move during the séance. The 'spirits' could 'write' on unexposed film , produced light in the room of the séance and information that only the sitters could know. The Scole report concluded that there was sufficient experimental evidence to suggest the continuation of life after death. (Keen et al., 1999)

Doris Stokes was one of the best known and well regarded clairaudient mediums of the 20th century. She would always openly admit if she lost contact with the spirit voices, or received no messages from them, and was so successful that it is not surprising that she received hostile criticism from the most vocal sceptics of the time. A friend of ours, Pauline, who lived in America, went to

see her on impulse one day when she was visiting London. The accuracy of most of the statements made by Doris Stokes in this session, about the life of someone from a different continent who she had never met before, was such that it is beyond the bounds of probability that it was achieved by guesswork or fakery.

1. "Barbara and Sheila say hello." This, the first statement Doris made, is telepathy and not after death communication. These were the friends Pauline was living with in New York.

2. "There's a man here, Charles, who wants to talk to you." Pauline's recently dead father was called Charles. The voice and rhythm of his speech were his, though his cockney accent did not come through.

3. "Fred and Alice are here too." These were Pauline' grandparents.

4. "And Paddy came just after me" Pauline's uncle who had died soon after her father did.

5. "And your brother Peter's here."

This was a puzzle. Pauline had never, as far as she knew, had a brother called Peter. But because the rest of the information was so accurate she went over to see her mother in Ireland. When she questioned her mother she was told, rather reluctantly, about the abortion, back in Ireland at a time when such things were neither legal nor socially acceptable. The baby would have been a brother for Pauline. And they had chosen a name for him: Peter. *(Personal Communication).*

The evidence that mediums can contact dead spirits is now incontrovertible, and examination of mediums' brains during a

séance shows that the brain state is significantly different from both the control state and imagination (Peres et al., 2012).

Materialisation and the Kluski gloves

In the early part of the 20th century materialisations were very much in vogue and ectoplasm was often created in séances. The most convincing of these experiments was carried out with Franek Kluski, a Polish medium. A bowl of paraffin wax was melted over a bath of warm water. Kluski materialised an ectoplasm hand and asked the spirit to dip this hand into the wax and slowly withdraw it. When the wax had cooled this was repeated a number of times until, at the end of the séance, the medium dematerialised the hand and a perfect cast of it was left in the wax. Seven moulds of child-sized hands with the markings of adult hands, one of a foot and one of a lower face were produced in this way (Geley, 1923).

The Institut Métapsychique International conducted a detailed examination of this experiment to see if the results could have been fraudulently produced, either by sleight of hand during the séances, or moulds prepared in advance and surreptitiously smuggled into the laboratory (Varvoglis, 1999). Both seemed implausible because the experiment was so well controlled and they concluded that "…the Kluski wax gloves are genuinely paranormal, constituting evidence for an extraordinarily developed form of psychokinesis."

Table levitation and psychokinesis

"To abandon these spiritual phenomena to credulity, is to commit a treason against human reason. Nevertheless, we see them always rejected and always reappearing. They date not their advent from yesterday."
– Victor Hugo.
(cited in Brackett, 1885)

Psychokinesis – movement of physical objects without apparent human intervention – is one more phenomenon which seems to defy our scientific norms. Batcheldor (1966) describes sessions of table levitation by groups of sitters in which one six pound table levitated six feet, beyond the reach of the group, and another weighing forty pounds produced "brisk movements and levitations."

An interesting experiment to see whether table levitation might be a human-generated phenomenon is described by Leslie Kean, in her book *Surviving Death (Kean, 2017).* Leslie was part of a team invited by Stephen Braude to examine table levitation facilitated by Kai Muegge, a German medium. Five of them sat with Kai around a plastic garden table. *(Braude, 2016)*

During the sessions Leslie and Steve sat on either side of Kai, holding his hands and touching his legs so that he could not physically move the table.

> *"We experienced a lot of table tilting and erratic circular movement. But it was the longer more relaxed levitations that really stood out. One of them lasted about fifteen seconds. The table rose at least two and a half feet straight up…swayed and dipped as if rocking on wave in what seemed like a swimming motion. It was as if it had suddenly become light and fluid, floating effortlessly, almost 'alive'. (Kean, 2017)*

They were also aware of other odd physical phenomena - raps as if someone was knocking on the wall, and the ringing of a bell which was hanging from the ceiling – which occurred spontaneously while they were all still sitting round the table. Leslie Kean *(2017)* and Stephen Braude *(2016)* also draw attention to a paper comparing the waveforms of paranormal rapping sounds with those of human-produced sounds. (Colvin, 2010). The sound amplitude of a human knocking on a wall is strongest the moment the sound begins and then quickly decays, whereas in a paranormal rap the

sound starts quietly, builds to a maximum and then decays. See diagram in p.278 of *(Kean, 2017).*

The investigation of spirits has now gone a stage further, by using modern technology. Anabela Cardoso, was founder and editor of the ITC Journal Instrumental Transcommunication, which includes EVP (electronic voice phenomena) and DRV (direct radio voices). She has been able to show that spirit voices came from either the white background noise of a radio, or of a radio that was not working. A television camera pointed at itself or looking into a mirror has produced a lot of random moving dots. Sometimes these dots weave themselves into an image and have been claimed to be a form of spirit communication *(Cardoso, 2017).*

The evidence for an afterlife is strong (Tymn, 2021). For a few days after their death there seems to be an interim period when people may be able to communicate with those who were close to them in life. And even when separation from this life is complete, communication between the living and the dead seems possible through Mediums.

Chapter 4 Cross-examination questions.

Judge:

Now, would the Honourable counsel for the sceptics like to cross-examine the witness?

Yes, your honour.

Q: You say that close friends and relatives sometimes experience the presence of loved ones who died recently. Surely this could be hallucination brought on by grief, and if two close people are

grieving the same relative, is it not unsurprising that they both dream of him?

A: True. These are death bed coincidences. In some, the person who is dying goes to visit someone to whom they are emotionally attached. What is surprising is that it occurs at the time of death, the two dreamers may be far away from each other, and may not even know that the relative is dying. And it is also surprising that they should both have very similar dreams at the same time on the same night.

Q: You admit there are fraudulent mediums. Couldn't they all be frauds but some cleverer than others? And if not, why do they like to work in darkness?

A: Broad brush refutation is unhelpful. Detailed examination is needed. Some of the most successful mediums have been physically examined even to the extent of having body cavities searched. They have been chained so they could not move and the experimenters have ensured that neither the medium's hands nor their feet have moved. However the mediums were still able to produce ectoplasm and induce levitation and other physical phenomena. Mediums say it is very difficult to produce physical phenomena with normal lighting.

Q: Couldn't most mediums just be good at cold reading - or even, if it's possible, telepathic exchange with the sitters?

A: Some mediums have been rigorously tested. In the test situation the medium does not know who the sitter will be and never sees them because they are in a different room. As for telepathy, certainly this could be a factor, but from the reductionist science point of view, would not this be simply exchanging one impossible hypothesis for another? Telepathy can also be ruled out

as we have been given examples of sitters who were given information they did not know, but later discovered was true.

Q: The supposed voices heard over faulty radios and faces seen in TV 'snow' are always faint and hard to make out. Aren't they just interference plus the brain's tendency to find pattern in randomness, just as we see faces on the Moon or in clouds?

A: What is required is detailed analysis of the data. Sometimes patterns are hard to make out but on other occasions they are very clear and unequivocal and loud voices have appeared from a non-functioning radio even to sceptic Scientific American writers! (Shermer, 2014).

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Court Usher: Silence in Court. Be upstanding for their Lordships.

The Judge enters and asks the Court to sit.

"Advocate for the Afterlife, have you any further witnesses to call?"

Advocate for the Afterlife: "In this session we present some of the most compelling evidence for the afterlife and ask Dr Fenwick to resume the stand:"

Dr. Fenwick: My Lords, in 1973, Dr. Raymond Moody, in his seminal book *'Life after Life'*, (Moody, 1975) made one of the most interesting, controversial and important observations of the 20th century when, he observed that 'consciousness' somehow seemed to exist while the patient was unconscious during a heart attack. It was this concept that stimulated the field of near death research, and raised questions about the generally accepted, reductionist

view of science that consciousness is created by and limited to a brain.

Most subsequent studies have been retrospective, questioning people and examining their medical records sometime after their experience. Michael Sabom (1982) examined patients who had been in a variety of near-death circumstances, such as severe traumatic injury or comas as well as cardiac arrests. Some claimed to have seen their own resuscitation procedures while unconscious and, correlating their accounts with the medical records, Sabom found that the evidence did indeed point towards the experience having occurred during unconsciousness.

The term 'Near Death Experience (NDE) has come to refer to a wide range of experiences: those occurring during a true cardiac arrest, when the patient may actually be medically, though temporarily, dead; those in which they have been literally near death, in an accident or illness; those which result from extreme fear – the so-called fear-death experiences; and those which are part of a transcendent continuum in which death is not involved.

To clarify the terminology, Dr. Sam Parnia, a palliative care physician, has suggested that the term ADE – Actual Death Experience should be used for those experiences occurring during cardiac arrest when the person would have died had they not been resuscitated (Parnia et al., 2001). In this chapter the term NDE is used only for conditions which do not fit this classification.

Near Death Experiences

Studies in the USA and Germany indicate that 4.2% of the population have had an NDE and that more than 25 million people worldwide have had one in the last 50 years.(van Lommel, 2011). Since 1997, an entire journal has been devoted to their study, the ''Journal of Near Death Studies', (JNDS, 1987).

The features of these experiences vary, but the most common are:

- ineffability,
- timelessness,
- awareness of being dead,
- out of body experience,
- being drawn through a tunnel towards a light,
- meeting other human spirits, often deceased relatives,
- often in a beautiful garden,
- a life review,
- a feeling of peace, happiness, and a sense of harmony or unity with the universe,
- awareness of a boundary beyond which they cannot go,
- a feeling of being pulled back to the body because it is not their time to go.
- Sadness at having to leave something so beautiful.

Time in an NDE does not move in a linear fashion. Your life can be reviewed in a fraction of a second. Both past and future can be known. Using NDEs as a model, it seems that, in life after death, time is variable and flexible.

Advocate for the Afterlife: My Lords, We would now like to call as a witness Dr Pier-Francesco Moretti, who experienced an NDE after a car accident:

Moretti:

> *I remember a vision from above my car ….. many people were there…. as luminous presences which made me feel a sort of peace and sense of acceptance, even though I was aware that I was close to death. I remember lying on the ambulance bed……. I told my friend that I had a strange dream. When he told me… we had a car accident, I immediately heard the noise of the ambulance and felt a terrible pain.*
>
> *I was reluctant to report what I remembered. I was reading physics at university and trying to frame my*

experience within scientific theories. When my friend described the sequence of the events, I realized that my story was filtered by a logical interpretation that I introduced later. My perception was looking at events simultaneously, like pictures on a screen.

After that, I started to read accounts from people in coma of the 'out of body' aspects, the presence of light and the absence of a temporal sequence, framing them in the theory of relativity and quantum mechanics. I did not answer all the scientific questions, but I felt that death is a passage to another dimension with no separation between masses and times. I am no longer worried about dying, because I am just experiencing my identity as a human body localised in space and time, here and now. I am convinced that when I die I will experience another form of identity, free from fear and pain. My grandmother said that that dimension should be good, since no one came back to complain.

ACTUAL DEATH EXPERIENCES

Dr. Fenwick resumes the stand:

There can be no evidence clearer than the personal testament of someone who has died. Thanks to the success of medical interventions following cardiac arrest, many people do return from something that would have been classified as dead 50 years ago- a state in which the brain has ceased to function, the heart has stopped and the person is to all intents and purposes actually dead. And some report experiences (ADEs) which suggest the existence of another state of consciousness, unavailable in our normal everyday world.

What happens during a cardiac arrest

The international definition of death is: no respiration, no cardiac output and absent brainstem reflexes. This is the exact clinical state after a cardiac arrest. Simultaneous recording of heart rate and brain electrical activity show that within 11 seconds of the heart stopping, the brainwaves go flat. You are clinically dead.

Consciousness is lost in a matter of seconds when the heart stops, and may not be regained until hours to days after it restarts.

Even if cardiopulmonary resuscitation (CPR) begins straight away, blood pressure will not rise high enough to establish an adequate blood flow through the brain. Doine Stub and Graham Nichol found that only 7% of cardiac arrest patients survived and most had some evidence of brain damage; and the mental state during recovery is confusional (Stub & Nichol, 2012).

The flat EEG indicating no brain activity during cardiac arrest and the high incidence of brain damage afterwards both indicate that unconsciousness is total. The brain can't create images, so it should be impossible to have clearly structured and lucid narrative experiences and because memory is not functioning, if experiences did occur they should not be remembered. The brain does not begin to function again until the heart restarts. So in theory it is impossible for anyone in this state to a) experience or b) remember anything that occurred during it. And if an experience occurred during the gradual return to consciousness it would be confusional, and not the clear, lucid story which is characteristic of actual death experiences.

However, to muddy the waters some studies have found that in patients who are being monitored and have begun the actual death process, there is a sudden recurrence of brain activity, containing faster frequencies which may last up to five minutes (Lang, 1989; Grigg et al., 1987). Materialists have jumped on this as the explanation for the ADE. But this is random cortical activity which does not integrate different areas of the brain, and certainly could not restore consciousness.

Conventional science cannot explain how an ADE could occur at any point during the death process, and there are special difficulties in accepting that it happens when the ADErs say it happens —

during unconsciousness. However, about 10% of those who survive a cardiac arrest report an ADE .

It is very difficult to judge the exact timing of an ADE during a cardiac arrest. But two prospective studies were of people who had had cardiac arrests and were resuscitated in coronary care units, where their medical records show exactly what had happened; the patients had the same medication and resuscitation procedures and could be questioned as soon as they were well enough (van Lommel, 2011; Parnia et al., 2001).

Aim of the studies

To discover:

- How many patients had an ADE;
- Whether the ADE was similar to the traditional near death experience.
- Exactly when the experiences occurred – was it before or during unconsciousness, during or after recovery?

Of the 63 cardiac arrest survivors interviewed, 89% had no memories and about 10% reported ADEs, which they said had occurred while they were unconscious. These ADEs were, as was expected, very similar to those NDEs already reported in the literature. The authors also found that the ADEs were not due to medication, electrolytes, blood gases, religious belief or any other cultural factors.

Other research groups have found similar results. In a Dutch study of 344 cardiac arrest survivors, 41 (about 12%) reported ADEs (van Lommel, 2011). Their occurrence was not influenced by the duration of unconsciousness or cardiac arrest, or by medication but more ADEs were reported in the group of survivors who died shortly after their experience. In another study a higher rate of 23% was reported (Schwaninger et al., 2002) about 10% were found by Greyson, (2003) , while others (Sartori et al., 2006)

report about 25%. What is clear is that *actual* death experiences do occur in association with cardiac arrest, and their contents are similar to those reported in the NDE literature.

No studies have so far been able to provide definitive scientific proof of when an ADE occurs. Parnia, with Fenwick and others (Parnia et al., 2001) found that the patients themselves felt that the experiences occurred during unconsciousness - important because, as discussed above, we have no idea how clear consciousness can be experienced during a period of clinical death with a flat EEG. This question is absolutely crucial to one of the biggest problems facing neuroscience: is consciousness entirely a product of brain function and is it confined to the brain? ADE research is perhaps the most promising way of filling the 'consciousness gap' in neuroscience. From the point of view of science, the ADE cannot occur during unconsciousness, and yet there is tantalising evidence that that is just when they do occur.

The out-of-body evidence

About a third of ADEs are preceded by an out of body experience in which the experiencer says they leave the body and rise to the ceiling and can see the resuscitation taking place. Anecdotal evidence points to the OBE and therefore the ADE occurring during unconsciousness. Certain subjects even described their own resuscitation procedures accurately, suggesting that their ADE had occurred when the brain was 'down' (Sabom, 1982).

Dr. Penny Sartori studied a group of cardiac arrest survivors in a coronary care unit, several of whom said they had left their bodies and witnessed the resuscitation process. She compared their accounts of their resuscitation with those of another group of patients who had had no ADE during their resuscitation but were asked to describe what they thought had happened. It is usually argued that everyone sees so much resuscitation on TV that they

know the procedure. Dr. Sartori was able to show convincingly that the patients who claimed to have seen their resuscitation, described it much more accurately than those who could only guess what had happened and who made significant errors (Sartori et al., 2006).

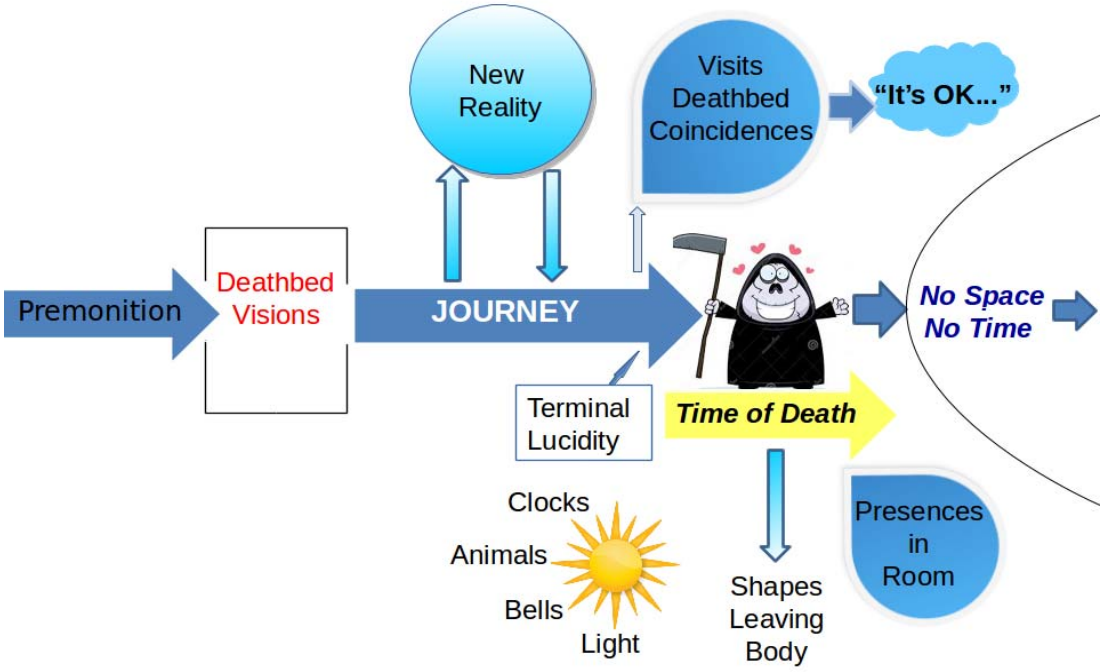
The case of Pamela Reynolds, described in the BBC's documentary film *"The Day I Died"*, (Broome, 2002) is worth quoting at length because it seems so clear that even the most ardent debunkers have been unable to produce a satisfactory explanation for it.

> Pamela had to undergo surgery to remove a cerebral aneurysm situated deep in the central structures of her brain. The operation was carried out in a specialised neurosurgery centre under close medical monitoring during the entire operation. Her brain was cooled and EEG electrodes measured her brain activity. When the anaesthesia had reached sufficient depth, the brain was known to be non-functioning. Pamela was clinically dead. Her circulation was taken over by a heart lung machine, the blood was emptied from her brain and the neurosurgeons removed the aneurysm. Then the heart was restarted, and the wound was closed.
>
> After the operation Pamela made several observations about what she had 'seen' during it which were acknowledged by the medical team to be correct. The best sceptics have been able to come up with to rebut this was that it was a case of 'anaesthesia awareness', which does indeed occur under some circumstances, but is impossible in cases such as this when the brain is emptied of blood and clinically dead. Far more significant is the following comment on the case, from the British Medical Journal.
>
> *"There is still much scientific work to be done before we can confidently suggest mind-body separation during the NDE. Dr Spritzer, the neurosurgeon who operated on Pam Reynolds, stated that he could not explain her NDE in the physiological state she was in, commenting 'I don't want to be so arrogant to be able to say that there is no way it can happen'. Let us hope that all those engaged in NDE research can adopt a similar attitude." (BMJ-editorial, 2003).*

End of Life experiences (ELEs)

Further evidence to support the theory that consciousness can in some form continue after death has been found in studying what appears to happen to people as they approach death

Occasionally, someone may have a premonition of their own death some time before it occurs, though this is rare. But about 80-90% of people who are dying see a vision of someone they loved so real that the dying person looks at them as if at a fixed location in the room, may talk to them, try to shake hands, or may clearly feel that the visitor is sitting on the bed. Often the visitor tells the dying they will be back to collect them when it is time for them to go. Without exception these experiences are positive and reassuring for the person who is dying and occur independently of drugs, pathology, or any physiological factors affected by the dying process. This cartoon shows the progress and phenomena of the dying process, the end of life experiences (ELEs).



These deathbed visitors seem to come to reassure the dying that all will be well and that dying is only a transition to a continuation of being. In some cases they accompany the dying person into a new, spiritual area, full of love and light, where they may see spiritual figures and other dead relatives. Often the dying seem to travel into and out of this area, and they are given to understand that this is where they will be going when they die. Relatives who overhear the conversation nearly always describe it as rational and lucid. Below Marie Dowdall describes what she saw while with her dying uncle:

> *"My uncle served in the First World War and experienced the horrors of the Somme. He had led a group of men, returned with only three survivors was badly injured and was awarded the Military Cross. When he was dying of cancer, my mother cared for him at home. One evening we were sitting with him when suddenly he leaned forward and stared across the room. He became very animated and looked very happy as he began to talk to people he could obviously see but we couldn't, calling them each by name and saying how wonderful it was to see them again. It became apparent that they were some of the men who had served with him at the Somme and died there. There was a look of wonderment on his face and he forgot his pain. I didn't see him conscious again, and he died a couple of days later." (Fenwick & Fenwick, 2008).*

The appearance of these visitors is often used by the palliative care team to comfort the dying and in one hospice in Canada the staff tell them about the possibility of deathbed visitors and encourage them to go with them if they are asked to do so.

Another very common experience reported by the dying is the transition in and out of another reality they describe as composed of light and love, and which they believe is their destination.

> *"My father was at my grandfather's bedside, deeply distressed, but my grandfather quietly said to my father, "Don't worry Leslie, I am all right, I can see and hear the most beautiful things and you must not worry." And he quietly died, lucid to the end." (Fenwick & Fenwick, 2008).*

Deathbed visitors are occasionally seen by relatives or palliative care staff who are with the dying person and more frequently (though still rarely), by children.

Recent work by Dr. Monika Renz, a palliative care physician working in Switzerland on cohorts of patients dying of cancer, has characterised the final stages of the death process, with a transition into light and love very similar to the ADE (Renz et al., 2018).

1. The cleaning and giving up of attachments.

2. The gradual crumbling of the ego structures of the mind and the dawning of non-dual consciousness where everything becomes a unity.

3. The final stage, death, characterised by experiences of light and love and movement towards a more cosmic sense of mind.

Deathbed coincidences

Some of the best evidence for the continuity of consciousness is the phenomenon of deathbed coincidences, in which a dying person makes a farewell visit to someone emotionally close to them. Often this is during a dream, or when the person suddenly wakes with an overwhelming realisation that something is wrong, or that someone was trying to contact them. (Fenwick & Fenwick, 2008) found 66% of the visits described to them occurred either in dreams or on a sudden awakening from sleep.

Distance is no bar for these communications, and even being underwater can't stop them. In October 1987 Terry Woods was serving in the Royal Navy on patrol as a Submariner:

"*Two days after diving I was asleep in bed and had a very real dream that my grandfather had "died". All of our family*

were waiting and I was the last one to arrive. When I arrived my grandfather picked up my nephew's bike and said "that's it, I'm off" and pedalled off and disappeared. I woke up the next morning and told my best friend that "I had a really weird dream that my grandad had died".

Whilst on patrol submariners are never told of any bad news, so it was three weeks later that Terry was told about his grandfather's death at approximately 3.00am on the 18th October 1987, when he was fast asleep 200 feet under the Atlantic ocean (Fenwick & Fenwick, 2008).

It is certainly not uncommon for people who are away from their families to have anxiety dreams about them, but Terry says the dream was very real and this, combined with the precise timing, adds weight to the idea that it was more likely to have been communication than coincidence.

The following coincidence was reported by an Australian mother whose son was a sailor. The transition to love and light is similar to the new reality described in the ADE.

I was suddenly awoken from sleep to feel something was wrong, then I saw a vision of my son (not a dream) walking slowly towards me. He was disheveled and dripping wet. As he got closer he slowly transformed and became surrounded by light. He then said "don't worry mum I am ok" and slowly faded. I knew something had happened to him so I rang England the next morning to find he had been drowned in a sailing accident the night before (Fenwick & Fenwick, 2008).

Sometimes coincidence is a reasonable and rational explanation for these events. But in many of these accounts, both the accuracy of the timing and the strength of the emotional response make it much harder to attribute them to 'just coincidence'. That seems much less reasonable or rational than the alternative explanation – that there is somehow a genuine connection between the people involved and that this contact is driven by the person who is ill or dying.

This suggests that there is a state at death or just after death in which the person has some kind of existence in which their personal consciousness – their 'mind' - somehow persists independently of their brain. We can find further corroborative evidence for this in the study of actual death experiences.

Some of the accounts of these deathbed visits are particularly interesting as they show apparent communication between a dying person and someone who is close to them emotionally but geographically far away.

> *"Our friend Sarah told us how she had been living in Florence for several months when one day, on her way back to her pension from an art class, she had a sudden, overwhelming feeling that something was wrong with her father – who, as far as she knew, was perfectly well and healthy at home in America. The feeling was so powerful that she began to run, feeling that she must ring home immediately and find out if anything was wrong. When she reached the pension a phone message was waiting for her, telling her that her father had died after falling down the cellar steps and broken his neck." (Peter Fenwick: Personal Communication)*

These experiences are usually brief and while some, like Sarah's, give rise to a sudden strong conviction that someone they love is very ill or has died, other people simply have a feeling of uneasiness for no apparent reason, as in the following account by Kathie Guthrie.

> *"Sadly my brother was killed in a car crash some 20 years ago now. I had been at work intending to work till 5 o'clock. At 4.20pm I was so uneasy and began getting cross with myself I just packed up and went home despite really needing to stay at work for one reason or another. I found out at 2.30 am the next morning that my brother had been killed instantly by a drunk driver at 4.20pm." (Fenwick & Fenwick, 2008)*

Kathie would probably not have given a second thought to her feeling of uneasiness had she not discovered the exact moment of

her brother's death. It is ambiguous experiences like this which reinforce the view that they cannot be dismissed as simply coincidences, even when the feelings experienced are inexplicable and out of character, and the timing approximately correct – indeed uncannily accurate in this particular case.

To determine whether an experiences is coincidence or fact we devised a rating scale and used it to rate 100 coincidences reported to us in response to newspaper articles and broadcasts. We found that the experiences were all within half an hour of death but most were at the time of death as recorded by the hospice.

Non-local phenomena around the time of Death

A number of inexplicable occurrences are often reported at or around the time of death, for example clocks stopping, light in the room, shapes seen leaving the body and domestic pets seeming disturbed. These features suggest that dying is a very special event which seems to cross the boundaries of both time and space.

Contribution of dying to our understanding of life after death

In summary My Lords, The accounts we have of the mental processes of the dying can only give us a partial view, taking us up to the moment of death. The accounts given by those who return from an A/NDE have a higher definition and paradoxically seems to give a much clearer insight into the mental state of the dying as they start the journey. But despite these differences, the amazing similarity of accounts of the transcendent realm strongly supports the idea that there is one transcendent reality which, although accessed differently, is where the dying go.

It is surely illogical to think of end of life visions and actual death experiences as isolated, entirely unrelated events. It makes more sense to regard them as part of a continuum, or as different

views of the same event – the dying process. It is easy to spot the similarities between them. Both give a glimpse of a transcendent realm suffused with love and light, and both seem to eliminate any fear of death. The presence of dead relatives who seem to be there for a purpose is common to both experiences - to take you on your journey, in the case of an end of life experience, or in an ADE, to send you back, with the message that it was not your time to go. The relatives are all healed of any injury like lost limbs and they never age.

There are obvious differences too. First, the feeling of being out of one's body has not been reported in any of the end of life visions we have been told about, though it probably occurs in about a third of ADEs. Neither has anyone described a tunnel experience as part of an end of life vision. Instead, although the dying person sometimes describes being able to move into and out of another transcendent realm, only a movement towards rather than a real journey seems to be involved, just a feeling of going to and from with great ease. Perhaps it is the mental set of the dying which makes the tunnel experience less likely to occur. The dying often spend some time on the edge of consciousness, and at some level at least may know that death is approaching; they are embedded in a psychological matrix of ongoing, a journey to elsewhere, in which the process of leaving may be prolonged. In the A/NDE the movement into the experience – sometimes through a tunnel – and the return, usually described as a 'snapping back into the body' are very precise and abrupt events. There is a clear beginning and a clear end. But the end of life experience is a one way journey only, guided and supported by those you have loved.

How does this help with our understanding of life after death? The evidence we have would suggest that the domain after death has no location in physical space; subjective time is quite different,

almost as if there is no time. But the domain is full of light and love. This would fulfil the concept of an entry into no time and no space but the memory of this area is always love and light.

Judge:

Now, would the honourable counsel for the sceptics like to cross-examine the witness?

Q: One of the central beliefs of most religions is in some sort of afterlife. Scripture and belief are not counted as evidence for this trial, but could they count as evidence *against* survival? Most people naturally fear death and find it hard to imagine their narrative consciousness just ending. Religions have nurtured this fear with ideas of heaven and hell, thus encouraging hopes for an afterlife. So, as rational minds, should we not distrust ideas of an afterlife as products of indoctrinated fear?

Dr. Fenwick: These experiences do not map onto religious belief. They can happen with similar frequency to atheists, Christians, Muslims, Jews, Hindu etc

Q. Couldn't A/NDEs simply be like dreams - fantasies generated in the brain?

Dr. F. The similarity of these experiences makes this unlikely.

Q. A/NDEs have been very widely reported in popular books since the 1980s. Couldn't many now be being generated through hopes and expectations of those dying?

Dr. F. Following an early TV programme about NDEs in 1989, before the phenomenon had had much publicity. I received over 400 letters about NDEs. They were from an English population who

all maintained that at the time of their NDE they had not heard about them.

Q. Can't the tunnel, the light and even the feeling of Love be a result of brain processes starting to fail due to lack of oxygen?

Dr. F. There is no clear evidence that tunnels, light or love are generated by anoxia. For example, in obstructive sleep apnoea oxygen levels fall to below 60% and none of these phenomena occur.

Q. People say they have difficulty putting their ADE into words and a linear sequence. Could they not just be the recovering brain trying to make sense of the confusional blur of unconsciousness and not something actually experienced by those who do not recover?

Dr. F. The experiences of the ADE occur in a very clear sequence and are not a blur as they appear to occur in clear consciousness.

Q. This evidence for NDEs is based on anecdote. Clearly it's not ethical to conduct trials, but is there any quantitative evidence?

Dr. F. This is incorrect. A number of studies have collected multiple cases and analysed these according to a strict proforma for various components of the NDE. So although the data are subjective accounts, the analysis of this data shows objective quantification of the result.

Court Usher: Silence in Court. The Court will adjourn.

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6. Reincarnation

Advocate for the Afterlife:

In this session we call on neuropsychiatrist Dr Peter Fenwick to resume the witness stand and provide evidence for reincarnation - those who have died being re-born in a new body.

History

Every culture has its own theory of survival. Plato believed the soul was immortal. Pythagoras is said to have taught reincarnation and Virgil introduced the idea of reincarnation in his account of the underworld in the Aeneid.

Hindus and Buddhists believe that Karma sets the moral tone for your next life. In Tibetan Buddhism, after the death of a spiritual leader, there is a search for his reincarnated soul.

Let's turn to documented evidence from more recent times. One of the clearest indicators of the survival of individual human consciousness after bodily death would be reincarnation. So what's the evidence?

One of the first serious studies in this area was done by Ian Stevenson who collected over 2000 cases, mainly from India (Stevenson, 2001) but also from Europe (Stevenson, 2001). Jim Tucker collected many in the USA, and showed they occur as commonly in a Western culture as in India (Tucker, 2015).

From the age of only five or six, Alan Pring knew that he wanted to become a pilot. His chance came when he joined the RAF in WW2.

> "*When I began flying in 1943 my instructor was convinced that I had piloted aircraft before. Just knew how to fly and every 'new' experience to which I was introduced in the air was already a memory. Similarly, the first time I encountered the smell of aircraft fabric dope I knew that I had experienced it previously, and it gave me the most peculiar sense of pleasure, as if it was associated with very happy memories. My love of flying has never faded but it is directed always in my memory towards biplanes. I feel that I flew with Sopwith Aircraft."* (Fenwick & Fenwick, 2001)

After the war Alan joined RAF Voluntary Reserve and one day six of them decided they would have a mock dogfight. Alan felt he had managed to climb to 9000 feet without being seen, spotted four of the planes at least 1000 feet below him and concentrated on searching for the fifth.

> *"Suddenly with an ominous sinking in my stomach I looked behind me. There, not five yards from my tail was the whirring propeller of the fifth plane. At that moment I experienced a horrendous feeling of doom….It was no longer a Tiger-Moth behind me but a Fokker triplane. I saw the two flashes of its machine guns and immediately felt terrible blows in my back and momentarily everything went black…... I was quite emotionally upset…not at losing the contest, but the conviction that it had all happened before and that I had been*

killed through carelessness and over-confidence in a dogfight in the First World War." (Fenwick & Fenwick, 2001)

Many years after this experience Alan had a near-death experience which had a profound effect on him. It convinced him that it was impossible to die. Given this belief, he says, it would seem plausible, if not logical, that reincarnation is a possibility. (Fenwick & Fenwick, 2001)

Classically these past life memories start to emerge when the child is very young – around the age of two years - and are lost by the time they are six. These children usually also have repeated nightmares which relate to their previous life, often including an unnatural or violent death – murder, suicide, accident or combat. After a few years the child starts discussing their previous life and attempts are then made to verify what they say. In some of these cases correspondence is remarkably high. Often, the time between death and rebirth is only a few years, though in one of the strongest and most interesting cases, that of James Leininger, described below, it was over 50 years. But it included many statements that have been verified as accurately describing the life which is said to be reincarnated (Tucker, 2016).

In 2000, when James was 22 months old, his father took him to the Cavanaugh Flight Museum in Dallas. James was fascinated by the planes, particularly by the World War II exhibit, and by a video about the Navy's flight exhibition team. Soon after the trip he began repeatedly to say "airplane crash on fire," and slamming his toy planes nose first into the family's coffee table. James's father travelled a lot, and when James and his mother saw him off at the airport, James would often say, "Daddy, airplane crash on fire." He

also began to have nightmares in which he would scream and eventually also say "Airplane crash on fire! Little man can't get out."

> His parents and Jim Tucker investigated this case and they came upon 12 close correspondences with the life and death of a WII_pilot, James Huston, who had been a pilot in the American Airforce, whose plane took off from a boat named Natoma, and was shot down by the Japanese. The plane's engine was hit, it was set on fire and crashed. Although James Leininger said that he was flying a Corsair, which frequently got flat tyres, when he crashed, in fact Huston had been flying a different plane when he died, an FM-2, but he had flown a Corsair earlier, which frequently got flat tyres in test flights. James also remembered the name of one of Huston's friends, Jack Larsen, who had been on the aircraft carrier with him, and this too was verified (Tucker, 2015).

James's recurrent nightmares and what appeared to be post-traumatic compulsive play of plane crashes appear very similar to those that children who have experienced trauma in their current life display, and they are often seen in children who report memories of previous lives.

It is difficult to dismiss this as fantasy, or say that the child James's statements matched Huston's life purely by chance. The specifics present in this case would seem to undermine that possibility, for example, knowing the unusual name Natoma for a ship that was indeed in the place he reported.

James had made all of the documented statements by the time he was four years old, so he could not have read about them. In any case no published materials about James Huston are known to exist. No television programs focusing on Natoma or James Huston appear to have been made either (Tucker, 2015).

Another interesting case is that of Ryan Hammons, born in Oklahoma in 2004. His speech development was delayed so he did not speak in full sentences until he was four, when he started talking about a past lifetime. He remembered being in his mother's

womb, and asked her why she had cried when she discovered he was a boy (which was true, though he could not have known about it). He said that he wanted to go home to Hollywood and visit his "other family," and gave so many details of this life and family, that his mother began to investigate it herself, and eventually contacted Jim Tucker, who also investigated it. Ryan's previous life was found to be as Marty Martyn, a Ukrainian Jew and unsuccessful actor (though he did manage to tap dance on Broadway). Ryan gave 55 verified details of his life. Martyn was known to be very fond of Chinese food. The first time Ryan was taken to a Chinese restaurant he picked up his chopsticks and used them quite naturally without having to be shown how. He also liked to tap-dance. He is said to be one of a few such children who seemed to have psychic abilities, able to predict things which were about to happen (Kean, 2018) (Tucker, 2015) (Haraldsson & Matlock, 2017)

Personality and past-life memories

Professor Erlandur Haraldsson, of the University of Iceland, studied the personalities of 30 Sri Lankan children who claimed past-life memories. Although he was only able to verify a few of these cases, his main aim was to try to identify common characteristics in children who had these memories. Did they show a tendency to dissociate – and how did they get along with their parents? If they did not, then the child might have a good reason for feeling he actually belonged to somebody else.

What he did find was that the children who had past-life memories were usually very bright and mature for their age. They had greater verbal skills, better memory and were more serious, less likely to fool around in school. If one assumes that past-life memories are quite common in early childhood, but are quickly forgotten, then perhaps it is only the early talkers who could speak

about them before they vanished completely. But he found no evidence that such children were socially isolated, suggestible, had a tendency to dissociate or had relationship problems within the family - in fact that they were no more likely to create this fantasy world than any other children.

These are the most common features of a previous life:

- They died a violent death, often related to a phobia in their present life. Of 52 reincarnated children who had died by drowning, 42 had a fear of water (Stevenson, 1990)
- There are birthmarks which correspond to an injury at the time of death in the previous life e.g. bullet wounds, or reproduction of injuries e.g missing fingers. It has also been suggested that previous lives might be a factor that contributes to the development of human personality.
- Nightmares related to the previous life are common.
- The time most frequently seen (mode) between death and rebirth is estimated to be about four and a half years. But the mean is much longer, in the teens.
- After a few years the child starts discussing their previous life and attempts are then made to verify what they say. In some of these cases correspondence is remarkably high.
- Most children lose their past-life memories by the age of 6.
- Ian Stevenson noted that many children appear to be in a partial trance when they talk about their previous lives (Stevenson, 2001).
- Some people, even as adults, have inexplicable feelings of déjà vu when they find themselves in certain places or situations.

Past Life Regression Therapy

Roger Woolger was one of the first doctors to practice regression therapy. He did this not because he was trying to prove reincarnation, (though he gave the impression he believed in it), but because it worked as a therapy. Belief was incidental to his work as a therapist, which involved using stories that might or might not be true (Woolger, 2010).

Roger Woolger found that one of the quickest ways to get people into past lives was to start from the idea that everyone has within them inner characters, secondary or sub-personalities, which appear in their dream life, and then to try to find one or two places in the world which either attracted or repelled them, and imagine they were living there in another lifetime.

Although he believed that between 10 and 30% of what came up was fantasy, he also believed that he could distinguish between a fantasy reconstruction and a genuine past life memory. Regression therapy seldom provided any evidence of reincarnation. A past life regression that is attempting to prove reincarnation would take quite a different form (Fenwick & Fenwick, 2001). The hypnotist would try to elicit as many details as possible – name, date, places, anything that could be checked, to see how well the past life story hung together, as in the following case:

> Neil is a professional hypnotherapist who uses both past life and present life regressions to resolve problems. One day when he was working with a client she regressed to a past life in the 1920s and recounted very specific details of her life, including the name of her favourite aunt – Aunt Aggie. The client's previous life ended in 1934. She was born in this life in 1946 so it seemed likely that some of her previous relatives were still around.
>
> This lady had never been to England and yet she had given specific details of names and addresses in Burnley,

> Lancashire. After the session with the client present Neil telephoned directory enquiries and gave them the surname and address that she had relived.. "I was given two telephone numbers for that name in that street in Burnley. One was identical to the house number that she said she had lived at. With the client's permission Neil telephoned that number and asked for Aunt Aggie, to be told by the person who answered the phone that Aunt Aggie had died about five years ago. Neil said that his client was freaked out by this and understandably did not want to continue any further. He added that his client had no relatives in Burnley, in fact she had never heard of the place. (Fenwick & Fenwick, 2001)

Coincidence is really the only rational explanation and yet the account would involve four coincidences – name, house number, street name and town. Is this really that much easier to believe than the idea that the client had somehow tuned into memories of a past life, whether her own or someone else's?

Another case which illustrates very well the value that past life therapy can have is that of a young woman, Catherine who, for more than a year had been suffering from recurring nightmares and chronic anxiety attacks. When no traditional therapy seemed to help her, her psychiatrist, Dr.Brian Weiss, turned to hypnosis. This was something he had always been sceptical about, so he was astonished when Catherine began recalling past-life traumas which seemed to hold the key to her problems, and he lost his scepticism completely when she began to channel messages from 'the space between lives', which contained remarkable revelations about his own life (Weiss, 1994).

Discussion:

So how might information be preserved between lives in reincarnation?

Psychologist Jeffery Martin has suggested that every human consists of two domains:

Domain 1 consists of our physical attributes, body, genetic profile, and the filters in the brain which are constructed by the experiences of the individual and so are different for everyone but the same in that they limit in some way the expression of the transcendent nature of the individual.

Domain 2 is a transcendent realm, containing consciousness – perhaps more easily thought of and described as awareness. Awareness can be seen as the prime generator in the universe, giving rise in its widest state to love, light and the experience of bliss (Martin, 2019).

Awareness is understood to be the driving and creative force of the universe, which structures every moment, and has an evolutionary thrust leading to the development of the physical realm (Martin, 2019). The experience of awareness is limited by the restriction of the experiential filters constructed by the brain.

Domain 2 exists in no space, no time and thus is unknowable to the physical realm but can be made manifest and thus available to the physical brain,ee chapters 7-8 in (Martin, 2019).

There are now so many of these cases that one has to accept that a memory of what happens in one life can be reproduced in a subsequent life. If such memory does exist then it is supported by people who die and live again following an ADE.(Actual Death Experience see page 40)

As both brain and body decay after death and a reincarnated body has no close genetic relationship to the previous one, it would not be possible, with our current science, for this to affect the genetics of a child, e.g. birthmarks on a child who is born with the stigmata of a person who has died. A non-physical component to

the body must be postulated if information from a dead person is later to affect the genetic profile of the reincarnated person.

This presupposes the carryover of information in some way from one life to the next. One possibility is that at death the memory component of a life goes into an area of the universe which has no space and no time. When the very wide experience is called back from no space, no time, it will be reinterpreted by the filters in the growing child and thus will be similar though not identical to those of the original person.

It is unlikely that the space into which memory goes can be determined by classical physics, or we would already have had hypotheses to explain it. It is thus reasonable to assume that these are quantum mechanical spaces which have no space and no time (Wheeler, 1990).

A Hilbert space of one type or another must be a candidate and I would ask physicist Dr Vasileios Basios to take the witness stand and briefly explain what that is:

Dr Vasileios Basios

Hilbert spaces express the basic tenets of all quantum theories and quantum field theories and transcend the wave-particle duality. They are extensions of the classical concept of vector spaces which themselves generalise, by abstraction, spatio-temporal relations such as distance, direction and angle. Yet, Hilbert spaces are spaces of functions, relations, operations and operators beyond space & time. Not only do they describe all quantum phenomena but also express the quantum logic that underlies them, as well as the axioms of modern quantum information & quantum communication theories. Moreover, it recently became clear that they constitute the foundation of treating, from first principles, quantum theory as a purely informational theory, (D'Ariano, 2017).

If we assume this we can then postulate what is missing from this theory. There seems to be no transport mechanism by which the experiences of consciousness can be transferred into or back from the supposed Hilbert space.

Again, making the same assumption, we can see what the advantages are, namely that there is a reservoir of information which is not held in a physical plane but which can easily store every memory and bring it back intact as proposed by Federico Faggin in the chapter/appendix "One and the Consciousness Units" in (Faggin, 2021) and detailed in (D'Ariano & Faggin, 2020).

It would be reasonable to argue that 'awareness' is a transport operator or 'projector', and since it is linked to consciousness it would be able to transfer information back and forth from the space. A work, your honour, that we are indeed engaged in developing, along with our own.

Dr Fenwick Resumes:

To understand awareness and the mechanism of perception we must first discuss non-duality. In the ordinary everyday world, people are fixed in subject/object consciousness (dual consciousness or awareness). Information from the outside world is analyzed by the brain and then projected back into the outside world. So we experience the outside world with an internal perceiver. However, in non-duality the structures relating to the perceiver vanish and thus the outside world becomes just one thing with the inside world. There is no perceiver looking out, just experience of the present moment.

Current science is our religion, and it has no explanation for, and therefore no belief in, any of the phenomena described in this

article. And like the followers of any religion, most of us find it easier to believe than to observe. But if we do observe, and try to do so objectively and honestly, a new belief system will eventually begin to evolve.

What science can do, despite its limitations, is to look at the personal experiences that have formed the basis of many people's belief in reincarnation. It can assess the quality of the evidence that they have indeed lived a past life and it can see how far the phenomenon of past-life memories can itself be explained within a scientific framework. If there are phenomena which can't be explained within a scientific framework then we must decide whether to ignore the many and varied accounts of them we have been given, or to acknowledge that our science is incomplete.

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7. A Human-filtered view

Advocate for the Afterlife:

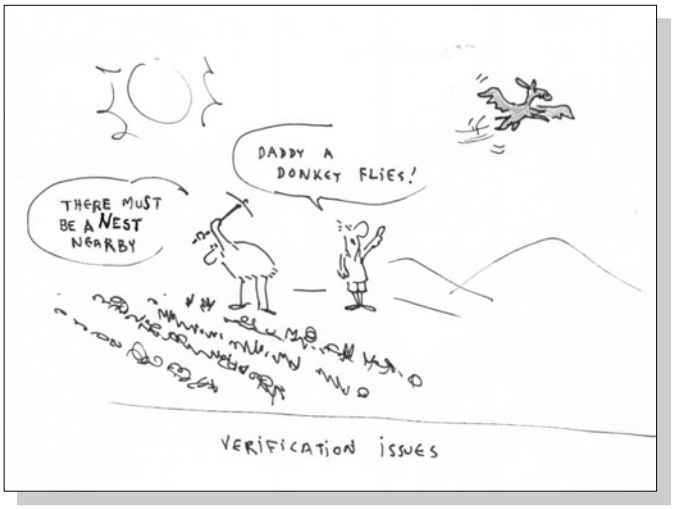
Honourable Judges, in the preceding sessions we have heard a brief summary of the substantial evidence that some aspect of consciousness appears to survive after bodily death. But to put it on firm ground, we need a theory to interpret this evidence. For this session we would like to call physicist Dr Pier-Francesco Moretti:

Dr Moretti:

Dear panel of esteemed Judges,

Interpretation of the facts depends on the assumptions we make and on the context in which we are embedded. Let me start with an example.

"Yesterday, my neighbours told me that a donkey was flying in the sky".



Is it true that a donkey flew yesterday? Did they really see it? Can a donkey fly?

As a scientist, I would start from the last question and ask myself if I can reproduce the phenomenon in any experiment. If not, or if any experiment does not confirm the hypothesis, I would look for the presence of any objective detection of the event, preferably independent from human cognitive bias. Based on a backward analysis, I would focus on what motivated the neighbours

to report a flying donkey. Was it a donkey? Was it really flying or an optical effect?

Most of the evidence for the survival of consciousness is in the form of "reports", that is "stories" and these stories are told by humans.

NDEs and reincarnation are reported by people of all ages, ethical groups, religions, cultures and in different historical periods. Many report passing through a tunnel of light and meeting deceased relatives. Others report that they were unable to sequence their memories of the experience, and that they probably organized the story according to some logic. Often they report having seen their own bodies on the ground while flying above.

I immediately note that these are personal stories, strongly influenced by the fears and desires of the individuals who reported them. However, statistically speaking, I have to admit that, although these stories are strange, their recurrence is high and the commonalities can hide something that we are not yet able to explain or even is incompatible with our current scientific models. What we do not understand can still exist!

In many cases, these accounts were reported by patients who were well monitored in equipped hospital rooms, as Peter Fenwick mentioned earlier. Patients reported real events while their brain functions were diagnosed as absent and vital functions were assisted by machines.

To make the story short, whether they were alone or in a credible medical context, people reported: the presence of light in different forms (tunnels, presences, lighting), externalization from the body and difficulty in assigning a duration and temporal sequence to the event.

But any conclusions will still be based on stories reported by humans. No "controlled" experiment has demonstrated that there is a link between the identity of a dead individual and a measurable, verifiable presence as a spirit in our world.

Other phenomena can take advantage of experiments in controlled conditions, where we can extract similar features to those reported during NDEs. These phenomena are called "paranormal", or, using better term, "anomalous" (Rao, & Palmer, 1987), and tend to be ignored or denied by "Western hard science", of course what is paranormal in one era might well be perfectly normal in another, like the radioactivity and X-rays (Horgan, 2012; Durrani, 2000).

We are talking about premonition and remote viewing. Cases of these can be supported by scientifically valid experiments (Targ et al., 2002; Jessica Utts, 1991).

Premonition means accessing information from the future.

Remote viewing means perceiving at a distance, far into space and beyond the usual sensing.

Both involve accessing knowledge of space and time not linked to localization in the present and in the current place (Marwaha & May, 2015). With breathing techniques (Trivellato, 2017) and concentration or intake of substances (Sheldrake et al., 2001), some are able to trigger this type of phenomena, including detachment from the body,

The study of the functioning of the brain has seen remarkable developments in recent decades. During states of absence of consciousness, a decrease in activity of the so-called brain default network is usually observed (Raichle, 2015; DiNicola & Buckner, 2019). The default network is the network of connections that is activated when the brain interacts and acquires data from the external environment. It is the system that shows the presence of

interaction and analysis of the brain through the senses. When the brain, voluntarily or not, "stops" receiving signals from the outside or processing them, it is unable to place itself at that moment and in that place. In practice, it loses its space-time localization.

The brain default network therefore seems to provide a measure of our state of self-consciousness located in time and space.

Here are the aspects that are "reported" by people who have survived experiences that we can call near-death or through different techniques, remembering that they refer to stories and that experimental verification is not currently possible for any of these:

2. detachment from the body, or a view of space mainly from above.
3. difficulty in assigning duration and temporal sequence to events.
4. presence of light.

Then let's add the salient ones that are acquired in scientifically validated experiments:

during states of unconsciousness or deep relaxation, the brain default network reduces its activity as cited in (Lee et al., 2019; Lin et al., 2017). That network is responsible for receiving and analyzing external inputs detected through the senses.

premonition and remote vision are phenomena that allow access to non-localized information in space and time. Many of these phenomena occur in unconscious or semi-conscious states (Lehmann et al., 2001).

We should recognize that any information we collect and analyse is filtered by the fact that it is reported by humans, but humans are also the ones who have built physical laws, models and concepts. So we have a bias when trying to explain the unexplainable, and our vision is not independent of our condition as humans, see also (Bouratinos, 2018). Nothing described by

individuals from their own mental experiences can be scientifically verified through external measures, apart from by measuring the activity in the brain.

Let us therefore reflect on the stories and extract the aspects that do seem to be independent of the human condition.

Let us start from the detachment from the body or a vision of the place from above. Suppose we are in a condition where space no longer exists, or in a dimension where the whole universe is not described in a set of separate objects but in its overall state. What situation in life comes to mind that can make us imagine losing the ability to distinguish objects? Probably a view from above. On the edge of a cliff, over the top of a mountain, on a plane. When we observe from above we have the sensation of grasping the entirety of the space and losing that of the detail. We are looking at the whole as if we were external to it. Clearly, to a human, "witnessing" the whole of space suggests a vision from above.

We come to another point: difficulties in assigning duration and temporal sequence to events.

If the first point suggested a condition without a localization in space, this suggests a similar condition but without a localization in time. Failing to arrange memories according to a time-line implies that their description occurred later in a logical way and based on personal, human experience. The same thing applies to the assignment of duration, which in the absence of precise time references is deduced from comparison with events already experienced.

We can deduce that we are dealing with stories that identify a situation where space and time are in any case distorted, and probably absent (Saniga, 2005).

Then we have the presence of light.

Are we sure that it is light as we perceive it? Light as that perceived illuminating books in the dark? The book exists, but does the light exists or it is a concept we use to describe the interaction of our senses with the external material world?

When we hear of visions of angels dressed in white, halos, dark tunnels that lead to a passage towards a reality illuminated by a blinding light at the exit: these are all representations of light that we are used to, assisting both with our senses and through our education. Nobody reports the presence of light as a photoelectric effect or with phenomena other than their own experience. Furthermore, most of the time the perception of light is identified in white or in any case without the distinction of colours. White is the result of all colours emitted simultaneously.

So white light represents the concept of light.

Light is indeed structured within the concept of space and time, according to Einstein's theory. The intrinsic characteristic of the distribution of space and time is the universal constant equal to the speed of light, constant and independent of any reference system. It is an intrinsic feature. We can address a characteristic to the light, or rather its speed, as a number that identifies the presence of all space and all time. The speed of light separates the space-time continuum between whatever has mass and what does not. Whatever can be measured and whatever not, for humans living at speeds lower than that of light, light represents the boundary between a world with defined space and time, filled with localized mass, and "something else". This something else, however, should not have space and time or massive objects, unless they have different laws from those we know.

One thing seems plausible: the stories of near-death experiences and some paranormal phenomena suggest that they can be framed as the access to a dimension without space and time,

and light signals the presence of the boundary towards that dimension (Saniga, 2005; Fenwick et al., 2018; Fenwick, 2019).

In summary, therefore, suppose we are unconscious, and our brain has stopped interacting with the external physical world. Let's suppose that our ego, consciousness or whatever you want to call it, has access to a dimension without space and time, thus being able to grasp all the information of the past, future and wherever they are. When we become conscious again, what would we, as humans, tell?

Could we say that we have seen something that we personally have never had anything to do with? Could we say that we have seen or perceived something outside the capabilities of a Human?

No, we would describe something that we can understand and relate to. In other words, we would filter it through a syntax linked to our physical and historical condition. We would report any information as a function of past and human experiences.

So, the reported stories pass through two consecutive filters: 1) consists of the combination of 1a) the sensory / cognitive capacity of human beings as evolved animals in a competitive environment and 1b) the individual cultural / educational background that allows the interpretation of facts. 2) consists of the methodology and cultural contexts that frame any identification and interpretation of facts (Bouratinos, 2018).

This reflection is by no means innovative, but it has to become our lens to investigate the facts.

By adopting a scientific methodology based on verification of facts and measurements acquired by instruments, we cannot assume the reports from humans as evidence for the existence of an “afterlife”. This is definitely true when we deal with NDEs and reincarnation. For other phenomena as premonition and remote

viewing, I admit they can be accepted as evidence of "something else", but there is no direct link with "afterlife". I do think most of us are therefore influenced by a confirmation bias and we should scout for a possible model that can explain these phenomena bearing in mind self-reflection and openness.

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8. A model to reconcile

Counsel for the Afterlife:

So, learned Judges, in this session we ask you to consider possible mechanisms that could explain the phenomena that we have heard from our witnesses. We call again Dr Pier-Francesco Moretti to submit his analysis:

Dr Moretti:

Dear colleagues, I focused my previous intervention on the apparent commonalities to extract a possible interpretation in terms of science we rely on.

I will therefore describe a model that is supported by contemporary science that we are now comfortable to accept in many other contexts.

The three main aspects I ask you to have always in mind are those reported by those who were close to death, but returned to life: the presence of light, the absence of time and the detachment from the body.

I first need to describe some scientific concepts:

First of all: “light”.

Light can be represented classically as a wave of the electromagnetic field. A wave can be also interpreted as a probability distribution in standard quantum physics. In the case of light, as a quantum entity, there is a probability that it can exist throughout the entirety of space. It is everywhere as long as it does not interact with matter. It can also be represented as a massless particle (photon). A photon has a constant speed, independent of reference systems, and that is the maximum allowed (the speed of light). Any particle with mass can only travel with a speed less than that of light.

To measure velocity we need two measurements in space, and the time it takes to cover the distance between them. But in a reference system that travels faster than light, time in Einstein's formula, becomes a negative number: something must be wrong or time must become something different, at least in its classical mathematical description (Einstein & Lawson, 2001). Time is in fact not an absolute quantity, that is, it depends on the reference system. It scrolls differently depending on the speed: the higher the speed, the slower the passage of time. In principle, if an identity that is linked to a body disconnects from its mass and starts traveling at the speed of light for a certain time, if it were to reconnect with the mass, would perceive its luminous travel as instantaneous . This is what a person would experience if their mind were to disconnect from their body and then rematerialize back.

We know, if we trust in Einstein's theory, that each body having mass would need an infinite energy to accelerate and pass the barrier of the speed of light, or must lose all its mass (Figure 1, the Minkowski space-time representation). If it looses its mass, it becomes immaterial. That is the only way to exceed the speed of light and reach the forbidden territory outside the light cones.

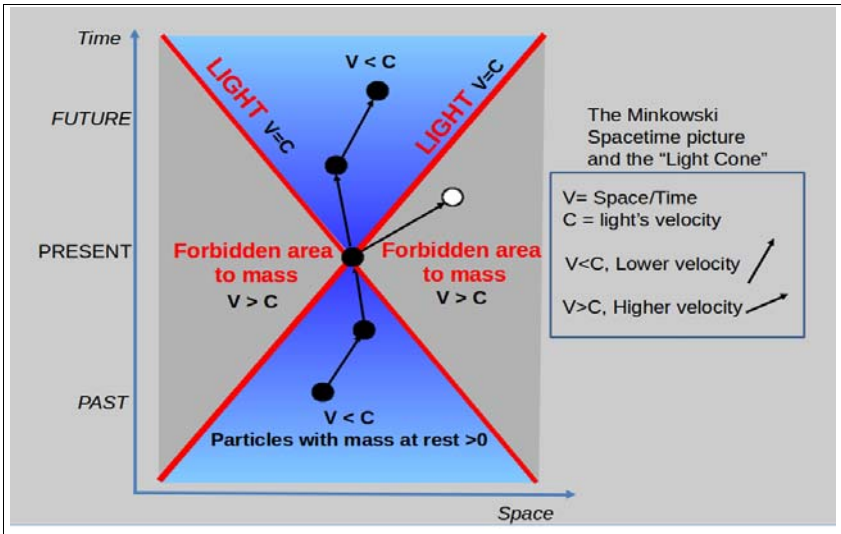


Figure 1 The Minkowski diagram is used to show the evolution of bodies/entities in space and time. Every body with mass (black dot) experiences space-time depending on its speed: the trajectory of the body in time (black line) has an inclination always within the lightcone (red diagonals). Since it has mass, it cannot accelerate to speeds greater than that of light and therefore its past and future are confined by the barrier of light's speed. If we have mass, we cannot access any entity in the forbidden areas outside the diagonals of the light cone.

In addition to light (i.e. photons), every microscopic particle with mass can also be described as a wave, that is, in principle, could be present everywhere. This characteristic of vagueness in spatial localization is lost when it interacts with the environment. There are two interesting quantum effects that demonstrate this vagueness in localization: tunnelling (Encyclopedia Britannica, 2021) and entanglement (Bub, 2020).

Tunneling is what allows a particle with mass to overcome an energy-potential barrier that classically would prohibit it. In reality it is not prohibited! But the probability that the particle can cross the barrier is low. It is the principle on which tunnel effect microscopes and other electronic devices are based (Aharonov & Rohrlich, 2005). When dealing with macroscopic bodies, the probability that all the atoms can jump together at the same time becomes truly zero. The more of them that are bound together, the more they are condemned to stay in a certain place.

Entanglement is a theoretical phenomenon that, in experiments to date, is mostly confined to microscopic particles, although larger and larger objects are being detected in entangled states (Abbott & et al, 2009; McConnell et al., 2015). Suppose that two particles are generated simultaneously and that there is a property that binds them to obey a certain law, e.g. a pair of photons or electrons sharing energy, momentum and/or spin. If we are able to separate them in space and manage not to make them interact with the external environment, they would have a description of their existence through a common wave-function, a probability wave, precisely because they were generated together. If one of the two, no matter how far away from the other, interacts with the environment, the property that binds them would remain valid and the other particle would obey, regardless of their mutual distance. This means that something would instantly happen to the other particle, with the correlation travelling instantaneously (Gilder, 2008).

"Time is not a reality [hupostasis], but a concept [noêma] or a measure [metron]"

Antiphon the Sophist (480-411BC)

"I regard space as a 'glue', or a set of rules, that binds things together. It is a plurality within a deep unity, and it makes a Now."

Julian Barbour, (Barbour, 2001) pg 18

If we now reflect on the concept of time, what if time also could be described as a wave or equivalently as a quantum operator? (Prigogine, 1982). Or what if time was not localized in an instant but depended on interaction? (Barbour, 2001) In Minkowski's space-time representation we would no longer have a world line centered on the particle moving in time, but we would have a number of possible combinations between past and future and different places. The spatial and the temporal positions would mostly depend on the fact that many particles, all "connected" together, interact with other masses (Barbour, 2001).

This means that our body cannot cross to the other side of a barrier of the space-time field represented by the speed of light. But we can imagine it, through thought.

In summary,

1) Humans have mass and therefore cannot spatially access places that are beyond those identified by the speed of light.

2) If humans had nano-scale or zero mass and did not interact with anything else, they could exist anywhere in space.

3) If humans had nano-scale mass and were linked by a law with another microscopic mass and both did not otherwise interact, they could correlate as soon as one of the two interacted, and they would do so at infinite speed.

4) With our thoughts, which are entities without mass, we can de-localise ourselves over time and remember past experiences and imagine future ones, but these are linked to our condition as human beings and to individual history.

All these reflections suggest that the condition of mass-entity blocks us from accessing the reality beyond space and time.

What does this block consist of and how is it overcome?

We are not speaking now about the speed of light, but anything that prevents a body from accessing another dimension with no localisation in space and time.

Let's go back for a moment to the fact that messages between material bodies cannot travel faster than light in space-time, unless the bodies have an intrinsic link and can pass as correlations through entanglement. And let's think of a boat that sails in the middle of the sea. Ripples move ahead of the boat if it's speed is lower than that of the propagation of sound in the water. When the speed exceeds it, we would see the trail behind us but no ripples ahead. This means that we are going faster than information can be transmitted. So nothing ahead of us could understand that we are coming while we would only affect what's behind us. In practice, we see the past that we have changed but we do not see the future that we are about to change. This happens if we're only seeing the surface of the sea. If we raised our eyes from the surface of the water, however, we would see what lies ahead of us.

It all depends on how we arrange ourselves on the boat; that is, if we see the surface of the water, if we look forward or behind, or if we stand up in the bow. What is it that allows us to change our viewpoint?

Let's now assume the existence of entities with mass not localized in space and not localized in time, as an extreme speculation. When they interact with the environment, they materialize in a position in space and time. But what defines existence?

"You are the music of the spheres heard from the particular vantage point that is you."
— Julian Barbour

(Barbour, 2001) pg 326

Let's now insert a definition, as often happens in the scientific field, because we need some initial rules to be able to proceed with the argument.

We define identity as the property of a series of connections between particles having mass that allows a living being to operate in the material world in order intentionally to modify it.

Therefore, identity is not a material object, defined by culture or humans, and positioned in a measurable place. We speak instead of living beings, capable of acting on the material world and capable of free will.

So how is identity achieved? Let us continue our speculation.

We have many material particles that are linked together through entanglement. When a living organism is generated, the genetic code as an initial algorithm begins its construction of the "identity" through interaction with the environment. The particles, with mass and therefore localized, have a link between them that defines their identity. This bond is described by a waveform integrated between all the particles, as is the case for entanglement. This bond has an energy and correlations that characterize its configuration and that we will call "identity energy". Identity therefore could be described by a 'waveform' or via some wave function. Its binding energy and correlations do not have a material existence (Figure 2). In principle, this identity cannot be measured directly through tools or models developed for the material world. We can only detect and measure the interaction of it with the external world.

The first consequence of this model is that there is matter with "meaning". A living organism therefore has a sort of "network" of energy and correlations that establishes its identity, or 'poiesis', as a concept of creation and invention, linked to the ability to influence the space-time distribution of mass through a massless quantity.

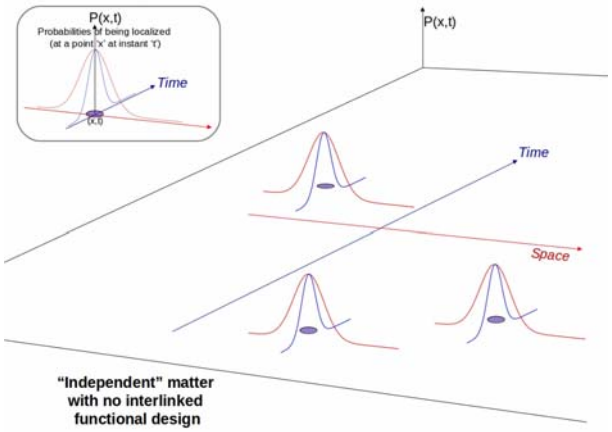


Figure 2a

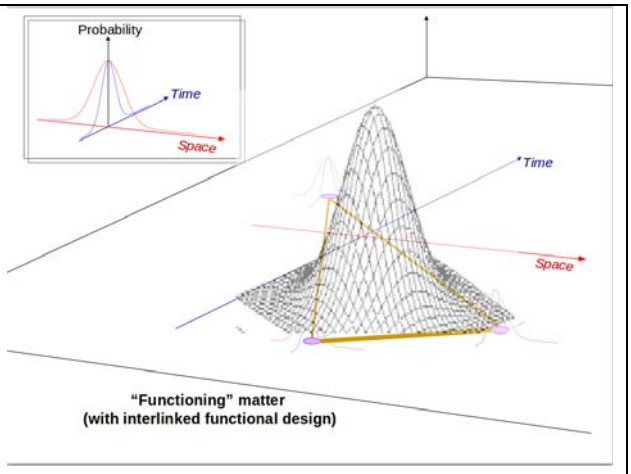
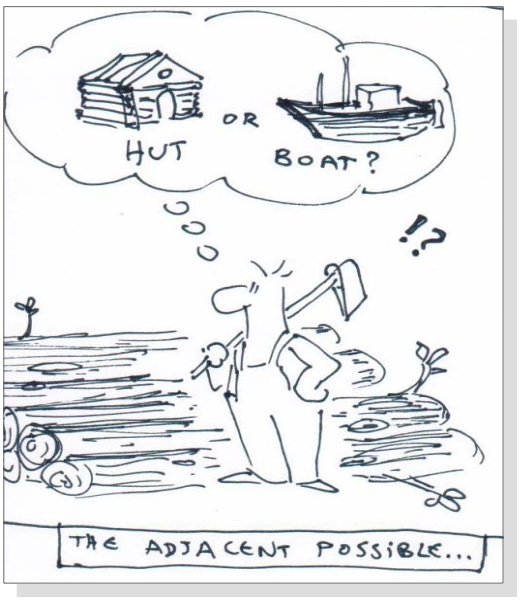


Figure 2b

Figure 2

Each particle (purple circle) with mass has a probability, i.e. likelyhood, of being located at a certain time and in a certain place, represented with blue (when) and red (where) bell-curves respectively. If there is no functional link between different particles, each one behaves independently (Fig.2a). If, on the other hand, their common genesis underlies a design, a form, or a function, the particles are linked by a functional "energy" that describes their identity (Fig.2b). This entire identity can also be represented with a localization probability, known as a "wave-function".

We therefore assume that there is a sort of energy that describes the order in matter, such as the energy that is needed to tie many tree trunks together to make a raft and therefore change its function. It is an energy that transforms the distribution of logs in space from



pieces of wood into a different meaning linked to a goal. It is not the energy that we used to cut the logs, transport them and tie them, but a form of energy that describes the design and the order in which they were arranged in order to change their purpose. If we had connected the logs for the raft in a different way, we would have created a hut for example. In classical philosophy's terms that would be the efficient and final cause, responsible for meaning and agency, ostracized by science since Galileo's times (Basios, 2005; Goff, 2019).

Now suppose that living beings have this order among their material components. It is an order that we have currently assigned to the genetic code as an algorithm capable of creating from a few constituent blocks a whole variety of living beings in turn capable of interacting with the environment and its resources, reproducing and evolving the algorithm so that it can survive changes that would otherwise be fatal.

In the proposed model, the name represents the identity as the concept associated with the energy of the structure that binds the material components so that they take on a meaning. Identity addresses the meaning. It can be associated with an energy, which is currently not measurable and describes its design and entelechy.

Now I move to the NDEs, meditation, premonition, remote vision, hypnosis, etc. Let's take figure 3 as a graphic support.

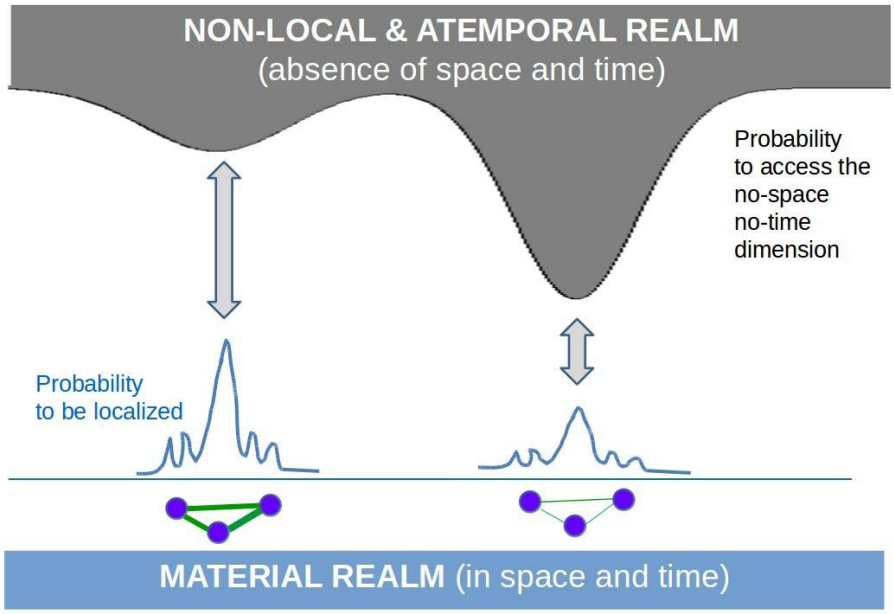


Figure 3: *Different components of matter (purple circles) are linked by energy and correlations (green lines) which describe the underlying design for their functioning (entelechy). These links define the identity associated with a probability of localization in space and time (blue curves). When the energy of the bonds are reduced (as the tight hand instance of the same "identity" shown here as green triangles), the probability of localization also decreases and that of being able to access the dimensions of reality without and beyond space and time increases (the black region). This provides access to more, or all, information beyond .*

Our atoms are structured together to make our body, and the whole system that composes it, including the brain, contributes to having self-awareness, thinking and interacting with the outside world. The external material world exists for us in a certain place and time. The internal world, on the other hand, can range. We have assumed this ordering structure of matter is associated with a form of energy that establishes the role, function or meaning of the design.

When the interaction with the external environment is high, that is, our senses and cognitive system are active in picking up external signals and processing them, we are fully present and localized. When the coordination energy of interactions with the environment decreases, measured for example by reducing the

activity of the brain default network, our cognitive capacity expands (Lin et al., 2017).

To put it another way: if we lose our 'name', or matter-based identity, we are able to access a realm that is no longer dominated by space-time variables. Our "part" accesses the "whole". In practice, the less we know, in the sense of acquiring details, the more we know, in a similar way with which, in quantum mechanics, we reduce (or 'collapse') the extent of possible states when we observe (von Neumann, 1955).

As we loose our identity embedded in matter, we access dimensions without and beyond space and time, where there is no sequence of events, there is no definition of speed and there is no measurement of space and/or time. We have access to more, or even all, imaginable information. When we return to ourselves, we regain the ability to interact through the senses and restore our identity and therefore the human filters of knowledge.

We can simply represent symbolically these material and immaterial realms through the projections (or shadows) of an object on different planes (see Figure 4) signifying the application of different observation/ description-filters to the object (Kostmo, 2010) .

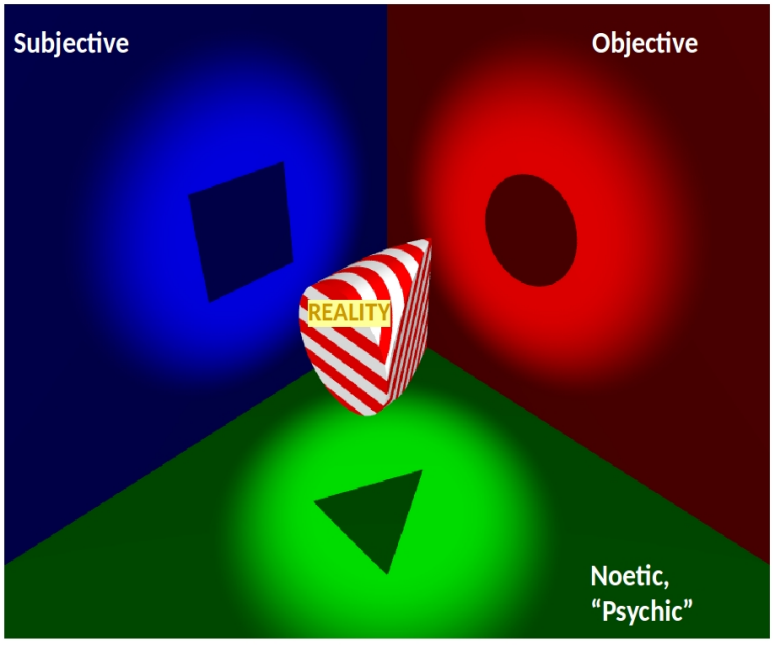


Figure 4: *A symbolic representation of the descriptions of reality (the three dimensional solid) according to the activation of different filters. The "reality" is projected on the different planes and shows its different aspects.*

The death of a living being translates as the lack of the possibility of re-establishing the binding energy and correlation, that makes the material structure localized in time and space. Death results in the impossibility of interacting with the material world "directly", but of being able to interact with the immaterial one instead.

There is therefore always a link between the material and the immaterial dimensions at every moment (Bohm & Hiley, 1995; Nadeau & Kafatos, 2001). What we consider identities associated with our bodies are the projections in one time and one place of a wider simultaneous and ubiquitous unity.

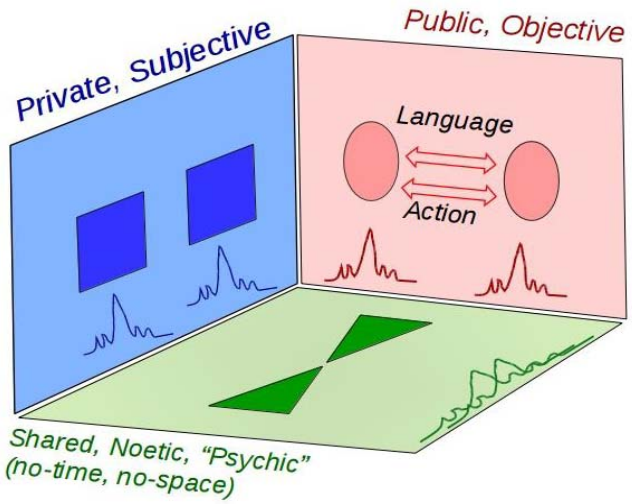


Figure 5: *Let us now imagine two identities viewing reality through the 3 filters or projections described in Figure 4. Those in the red plane of the objective world of matter have associated wave functions that locate them firmly in time and space, but they can communicate through language and action. In the blue plane of subjective experience they are also locked into time and place, but in private. In the green, noetic or psychic plane, their wave functions are broader and overlap, giving access to all information, out of time and space.*

Dear colleagues, the model I just proposed can interpret most of the phenomena within state-of-the-art science. Unfortunately, there is no mathematical formulation of how to describe the link between them, if not conceptually as I did, although very recently there is some preparatory activity on this front (D'Ariano & Faggin, 2020; Faggin, 2021; Kauffman & Radin, 2021).

Silence! Please Rise. The Court will adjourn.

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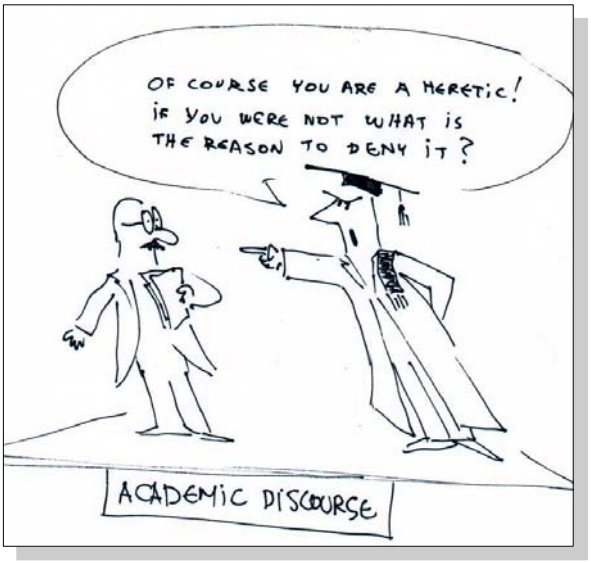
9. The evidence we know and the one to come



Chief Judge: I need more evidence and call for a second opinion.

Two entangled physicists, Dr Chaoticus and Herr Dr Dr Prof Quantiger along with the renowned Professor Lumina of the mathematical neuroscience department. Hoping to discuss the state of the art of their sciences on the topic they discover their need for a new kind of science altogether, if they want progress with a science of consciousness.

Chief Judge: Welcome, please take a seat and let us start without any ado, my question to you is does consciousness survive physical death?

(Drs Chaoticus and Quantidger miraculously occupy the same seat in superposition and start talking in a confusingly simultaneous way.)

Chief Judge: Please break for a while of your entangled state and let's do things as classically as possible. I cannot follow a discourse based on quantum logic.

Dr. Dr. Chaoticus and Quantidger: Sorry, sorry, your honour, it is an occupational habit. … Now, concerning your question,

according to prevailing standards of materialistic orthodoxy, the brain is the seat of consciousness and the self, so if we write down the governing equations of the Hamiltonian for information and quantum entropy in a …

Chief Judge: Please hold, I call Prof. Lumina for her testimony. I see her objection.

Prof. Lumina: Yes, your honour, in my field things are not so naively easy (Satel & Lilienfeld, 2015). No one has an equation for the brain. Moreover, the mainstream idea that the brain is the seat of consciousness or that consciousness is an epiphenomenon, an emergent property of neural activity, has been challenged from the early days of neuroscience. Severe brain injuries, brain deformations and more importantly veridical experiences that defy space and time as we know it (out of body experiences "OBEs", cognition during coma, Near Death Experiences "NDEs", "ADEs" and End of Life Experiences) point towards a more holistic view of consciousness. As we saw earlier, and the brain as the seat of consciousness has been challenged as a "mereological fallacy" recently (Bennett et al., 2009).

Chief Judge: By mereological fallacy, you mean? …

Prof. Lumina: This fallacy is to assume that a whole is a mere addition of its constituting parts and that studying a part in detail can tell us all about the whole. In neuroscience, in the case of the brain/consciousness debate, this is an implicitly assumed hidden assumption that has been uncovered and highlighted by Bennett, Hacker and others (Bennett et al., 2009).

Chief Judge: So, you say that to ascribe thinking or consciousness to the brain when it applies to the whole animal is committing a form of the so-called "*mereological fallacy*".

Prof. Lumina: Exactly, a holistic approach, on the contrary, would attribute consciousness not to an organ or behaviour but to the animal as a whole.

Chief Judge: Then the question arises as to where to draw the line in the animal kingdom. Are our pets conscious? The lower mammals?

Dr. Dr. Chaoticus and Quantidger: Your honour, you cannot stop there. How about the animals without a brain or even nervous system, like Physarum and Amoebas? Some colleagues of ours have demonstrated problem solving and decision making, a clear sign of intelligence, in such complex systems (Schumann, 2020; Trewavas, 2015). So would it not be legitimate to attribute consciousness or pre-consciousness to all physical entities in the universe, as the many schools of panpsychism (Skrbina, 2005; Tarnas, 1993) try to? If so, do non-physical entities qualify too? If consciousness is nonlocalized where is it? Is it localized in a wider space, the whole animal? Is it spread out in a vast environmental and social container or its interactions? In the cosmos? Or is it really beyond space and time?

Chief Judge: Order, order, the task at hand is not to solve the consciousness conundrum but to access whether self, human-self, survives after death!

Prof. Lumina: Well, your honour, they do have a point. What they suggest can be a working hypothesis leading us to ask what the

necessary conditions are for a localized consciousness such as ourselves, that ensure survival after physical death and disintegration.

Chief Judge: For that you need to elaborate on localization and locality - things that I was taking for granted seem elusive now.-..Please go on. What does physics tells us about this?

Dr. Dr. Chaoticus and Quantidger: Yes, we know all about it! The nonlocal nature of quantum reality is the hottest topic these days (Bell & Gao, 2016; Bohm & Peat, 2010; Nadeau & Kafatos, 2001; Penrose, 1994). In order to address this problem, we need to discriminate between the different qualities of the meaning of nonlocal and nonlocality. First by locality we mean interaction and relation of spatial proximity. A step further we consider the global as distinct from the local, i.e. a whole consisting of parts that occupies a larger space than its parts. By classical nonlocality we mean that there exist correlations and relations that connect parts to the whole in larger space and time scales. But also we have quantum nonlocality where events and relations are not contained in space-time at all, they too are nonlocal but in addition they are non-spatial or non-temporal or both.

Chief Judge: Let's see how to understand that. Say, I live far from my brother's family and while I am asleep my niece is born which makes me an uncle instantaneously although I am not aware of the reality of this connection. Is this relation nonlocal in the classical or in the quantum sense?

Dr. Chaoticus: Classical! **Dr. Quantidger:** Quantum! (looking at each other intensely and nodding at once)

Dr. Dr. Chaoticus and Quantidger: Sorry your honour, we got far too disentangled for a moment. Well, actually this is not a physical relation it is more legal or conceptual. But we know now that concepts are behaving more like quantum entities under the laws of quantum probabilities rather than classical entities that follow the Aristotelian, Boolean, logic (Fuchs & Khrennikov, 2021; Aerts et al., 2018).

Prof. Lumina: This is the new and fast developing field of *'Quantum Cognition'*, not to be confused with theories of 'quantum mind' or 'quantum consciousness'. In addition to the meta-modern reality of quantum theories, new experimental facts of how concepts are constructed and interact reveal a striking similarity with quantum entities.

Dr. Dr. Chaoticus and Quantidger: Yes, exactly, we deal with a whole that is different from its parts, and which cannot uniquely or fully be deconstructed into independent parts. Both realms – quantum cognition and quantum physics – share the same mathematical and probabilistic structure and underlying logic. A non-Boolean, non-Aristotelian, logic where complementarity ("none-and-both") rather than binary ("either-neither") is the rule. Quantum Cognition provides a novel understanding of the roots of decision making, i.e. the role of hidden assumptions, and the context-based bias of otherwise unobserved, or sub-conscious, conditioning (Basios & Gunji, 2017). We see that clearly if we

consider an orthocomplimentary lattice endowed with an associative ring algebra of …

Chief Judge: Order! Order! Stop! No equations are allowed in my court. Argue with your ideas not your published results! Give me an idea of classical and quantum nonlocality.

Prof. Lumina: If I may, your honour, The global relations within a whole are the domain of investigations of complex systems and complexity science (Nicolis & Nicolis, 2012). We have established by now that the whole -classical or quantum- is more and different than its parts. We understand that there are emergent properties that can only be ascribed to the whole and not to the parts. Most statistical properties, like the temperature, are like that. Classical systems' patterns that emerge during self-organization are another (Prigogine & Stengers, 2018). Nonlocal classical correlations are also the kind of relationship that two classical objects share when at a distance. The classical fields (electromagnetic, gravity etc) are such nonlocal entities. But also, for example, a pair of gloves, where one of them was forgotten at home and another taken on a trip, still share parity connection (one is still left-handed the other is still right-handed).

In the quantum world though, we experience another kind of nonlocality that does not depend on the spatial distance at all. In quantum reality the observed phenomenon and the act of its observation are intrinsically linked. The fact of quantum nonlocality is exemplified best in the phenomenon of entanglement (Gilder, 2008). Entangled pairs of quantum entities share observable qualities independently of their spacial relationship. But here, in contradistinction to the classical pair of gloves, their parity, left-

right handedness, will be created instantaneously for both when either one of them is observed. Here we have a whole (the entangled pair) that is not only more and different than its parts but also indifferent to its spatial extension. John Bell has mathematically analyzed the statistics of entanglement and has proposed tests, the 'Bell tests' (or 'Bell inequalities') which quantify precisely the effects of nonlocal interactions (Bell & Gao, 2016; Gilder, 2008). So far they have been verified again and again. Entanglement constitutes a very well documented phenomenon and is a paradox for the other great contemporary theory of physics, that of General Relativity.

Dr. Dr. Chaoticus and Quantidger: And recently leading physicists suggest that entanglement is related to black-holes communicating via their singularities, like wormholes (Adam R. Brown & Susskind, 2018)

Chief Judge: Stop or you will be fined for contempt of court. We are talking about the Self here!

Dr. Dr. Chaoticus and Quantidger: Apologies your honour… Anyway, what we want to point at is that the real Self might not be located in space-time it might be a pure state that coordinates its localized "avatar" the ever-changing but coherent spatial-temporal pattern of physico-biological entities that we comprehend as our localized self from 'somewhere', where there is no here or there.

Chief Judge: It seems to me that you either want to throw equations on my face or talk in an esoteric and apocryphally obscure language that only you understand.

Prof. Lumina: If I may your honour. Actually there are manifestations of non local Consciousness. The novelist Aldous Huxley called nonlocal Mind "Mind at Large". In often quoted *"Doors of Perception"* he writes:

> "*Mind at Large has to be funnelled through the reducing valve of the brain and nervous system. What comes out at the other end is a measly trickle […] of consciousness"* (Huxley, 1954).

It is exactly this 'Mind at Large', that is a non-temporal and nonlocal wholeness (Targ et al., 2002). Introducing –self– reflexivity we can approach consciousness research on a nonlocal level, in addition to the local one (Radin, 2009). Nonlocality of Mind then will complement our findings of which specific groups of neurons fire when we are in love, or when we solve equations. These firings don't tell us much about why these neurons get aroused in the first place, or why they often fire in synchrony. Meaning, correlations and understanding are not fully inside space-time. As Emilios Bouratinos puts it:

> *"Mind then understands because it is able to stand under the things it is preoccupied with, while actually observing them from above. The non-local components of reality illumine their local manifestations" (Bouratinos, 2018).*

From the perspective of local interactions we tend to be astonished how nonlocal connections arise in a world of separate entities and how such evidence can even be possible. We can change perspective and along with quantum theorist David Bohm (the one who inspired John Bell to come up with his tests) we can ask *"since everything in the world is interconnected, how come everything looks so separate?"* Bohm's theory accounts for many conceived anomalies such as the influence of mind over matter (Bohm & Peat, 2010). Evidence on that and the possibility of a nonlocal

consciousness operating, remotely, in the physical world has been accumulating ever since Bohm asked such questions.

Chief Judge: You say it has been accumulated but I see very little of this evidence reported in the mainstream literature. I can sense that you are using an argument that would ascribe the separate self as a local instance of some cosmic nonlocal higher Self. Is that so?

Prof. Lumina: Indeed, your honour, but first let me answer your hesitation with an analogy. You probably know your honour, about the origin of the "Whorfian hypothesis" (Hunt & Agnoli, 1991). You see in Liberia , the aborigine tribe of 'the Bassa' have only two words for their 'colours', they comprehend and categorize all objects as, say, light or dark. *These people cannot recognize any other colour; although physiologically they do not suffer from colour blindness!* The physical filter is the same as ours yet their mental filter is not. And modern anthropology testifies to this with a plethora of other examples. Is their reality different?

Like the Bassa tribe we cannot see what is beyond our conceptual radar although evidence is shining clear. It took almost half a century for the quantum physicists' tribe to accept nonlocality as a working hypothesis and test it. Maybe, hopefully, it will take less to observe the nonlocality of consciousness.

Dr. Dr. Chaoticus and Quantidger: Yes! To put it in another way in defence of our esteemed colleague, your honour: The relation between symbolic language and the dynamics of thinking is still problematic and at this stage more and more the need to consider context, meaning, attention, focus, and the role of emotions and feelings is becoming obvious. A materialistic-reductionist

perspective tries to abolish all such complex interplay as mere illusion, trickery and/or fallacies of judgement. But the bilateral feedback between reality and the construction of reality takes a central place in our 'meta-modern' contemporary physics. This relation cannot be dismissed simply attributing it to the idols of group-thinking, needing to conform to the norm, sensory illusion or cognitive bias. It is a fundamental interplay between the subjective and objective that calls for an expanded view of both

Looking at data with the wrong paradigm we arrive at paradoxes yet we can never separate data from context construction, and we can never observe raw, unconceptualized, content. As Isabelle Stengers observes, and quoted in (Bouratinos, 2018):

> *"for finite knowledge, there will always be a gap between what comes into existence and what can be defined."*

It might seem contradictory but it follows that reality is on a par with Leibniz's *"Principle of Sufficient Reason"* which stipulates that the Universe embodies the necessary and sufficient conditions for anything to be as it is, including its logic. That's why pushing ahead with a *Self-Reflective Interdisciplinary Science of Consciousness* needn't wait for the full working out of its theoretical tenets, justifications and specific implications ("Galileo Commission Report", 2019). It's 100% OK if we still struggle with an uncertain emerging picture of reality. This is preferable to an illusory certainty.

Chief Judge: Hmm we are reaching the end of this session and your evidence points to deeper ontological and epistemological considerations. You made a crack to my reality filter for sure. Let's see if light will shine through on our case.

Dr. Dr. Chaoticus and Quantidger: Right! That's the key here Light! The possibility that Self is a coherent indestructible quantum-

like Monad, something like a superposition of pure states of light-like q-bits, (Kauffman & Radin, 2021; D'Ariano & Faggin, 2020) can be traced if we could launch a project that would just probe the random event field anomalous cross-correlations (Nelson, 1998; Nelson, 2019) in a framework of …

Chief Judge: Order! Order! Session closed! Session closed! Go back to your entangled state, Dr. Dr. Chaoticus and Quantidger!

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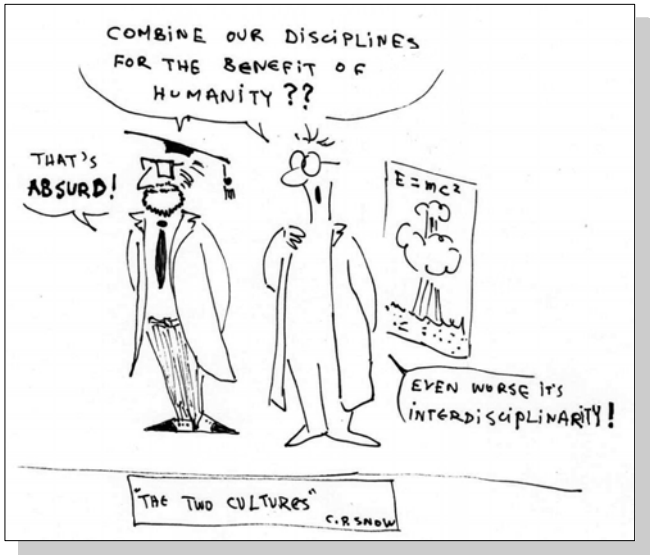
10. The Judgement

Chief Judge: Esteemed colleagues, the most difficult and responsible moment for this inquiry has come.



We need to focus on the fact that we are here to demonstrate that there is an afterlife, and therefore focus on the meaning of the words after and life, and above all on maintaining individuality after the body has ceased to have its own physical functions. I remind you that we are looking for evidence, and must keep in mind that the concept of evidence has different meanings in different contexts. We listened to the evidence of experts who presented arguments only at first sight conflicting.

What convinced me of the words of Dr Fenwick is that phenomena such as remote viewing and precognition have now been proven to be verifiable and repeatable even when they are approached with scientific method and rigor. Unfortunately, we do not yet know how to explain them with a model that is unanimously recognized or based on currently known laws of physics. Moreover, precognition and remote viewing do not prove that there is an existence after death.

On the other hand, the descriptions of near-death experiences and reincarnation are interesting. These tell us without a doubt that some individuals have experienced a reality different from the one we know, and that others seem to have inherited an identity lived

by individuals other than themselves. These experiences are told by people from different ages, cultures and education.

Although I am convinced that what was reported can constitute evidence for life beyond death beyond reasonable doubt, Dr Moretti has pointed out to us that, when we describe the experiences of facing death (NDE, ADE or reincarnation), they are based on human stories. We humans are limited in describing what could exist in another reality. However, Dr Moretti has proposed a model that can offer an explanation.

The proposed model suggests three main aspects to reflect on:

a) the concept of individuality as a localization in space and time,

b) access to a dimension without space and time through the removal of sensory interaction,

c) the condition of humans as a filter for that dimension.

Our individuality is associated with a form of energy that represents the design of one's existence, or rather the functions that the body and mind can express. This energy realizes an existence which, in the interaction with the material world, is localized in space and time. When body and mind reduce their interaction with the outside world, the probability of accessing a dimension without time and space increases, and therefore so does access to information of the past, of the future and of the whole universe. Dying therefore means accessing information embedded in a reality present everywhere and anytime.

When you access this reality without space and time, you acquire that information, but when you return to the material reality, this information is filtered by the human capacity to understand it.

What we heard made me reflect on two things:

Remote viewing and precognition have many aspects in common with NDE and reincarnation. These aspects can be nicely framed in the proposed model. That is, if we insert the stories and experiments in the model that provides access to a dimension without time and space, the different aspects can be explained through presently accepted scientific laws. The important thing is to accept the assumption that the human condition, when interacting with matter located in time and space, acts as a filter to, let us say, a wider reality.

The approaches we heard from the two experts, one based on physical laws and the other based on witness statements, are indeed compatible. The first implies that after death an individual loses identity and localization, joining a whole that exists anytime and everywhere. Identity has meaning only when localized and therefore filtered by a material condition. Reincarnation can be explained as a partial projection of the global dimension, or the life of a deceased, through the filter of the living individual that can interact in the present. The difference between reincarnation and NDE is the different coherence levels between the global information and the space-time localization of the filter.

Having said that, as a judge of this court, I declare that:

1) When we adopt a scientific method based on the measurement and verification of events, the evidence based on the stories is not sufficient to prove that an individual's consciousness continues beyond death. But it does suggest it.

2) Phenomena such as remote viewing and precognition have been shown to have a scientifically accepted validity, even if difficult to frame them into models unanimously recognized as valid.

3) The proposed model based on the concept of identity localized in space and time, and on access to a dimension without

space and time, provides an excellent scientific context to reconcile interpretations from different communities and cultures.

Therefore, whilst not scientifically proven, I declare that we have evidence that supports the existence of an afterlife beyond reasonable doubt.

But the discussion is unfinished and I call for action in the future.

We need to focus on aspects of the model in order to design experiments that can guide us to a deeper understanding of the links between the material and immaterial world. We need to put our efforts into reconciling the prejudices from the different scientific communities and open our minds to new discoveries.

Ideas and paradigms can be both useful and a hindrance, that is why it is very important to remember and reflect on their assumptions and suppositions. Reality in today's physics cannot be contained in space-time and matter only. Old dualities integrate more and more to a complementary, synthetic, organic view. Emphasis is now on the interrelations of part and whole rather than parts only. More importantly a new kind of science emerges where the study of nature ought to be complemented by the very nature of our study, bringing self-reflectivity and consciousness back to its fundamental role in nature.

Adding a non-local dimension to the local one in consciousness studies will prove essential for eventually establishing a Science of Consciousness that will consider reference to wholeness as its most fundamental activity. This non-local dimension will have the same significance for the proposed new science as understanding quantum nonlocal reality had for physics today.

Dear friends, what I have learned in this trial is that maybe I am you, and you are me. We probably were the same thing in the

past and probably we will be in the future. And that we see ourselves as different only because we are located now and in this place. Last but not least, I thank you all.

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11. CODA

Honourable Judges, before you close this case, we would like to call again Dr Peter Fenwick to share evidence from one final witness:

Fenwick: Alain Forget is a philosopher who lives in Monaco where he teaches a small group of students. He began meditating from the age of 20. He was 21 when he met his first Teacher. During this phase, he would meditate in many of France's cathedrals. His meditation method was to observe his mind and to let go of thoughts as they arose.

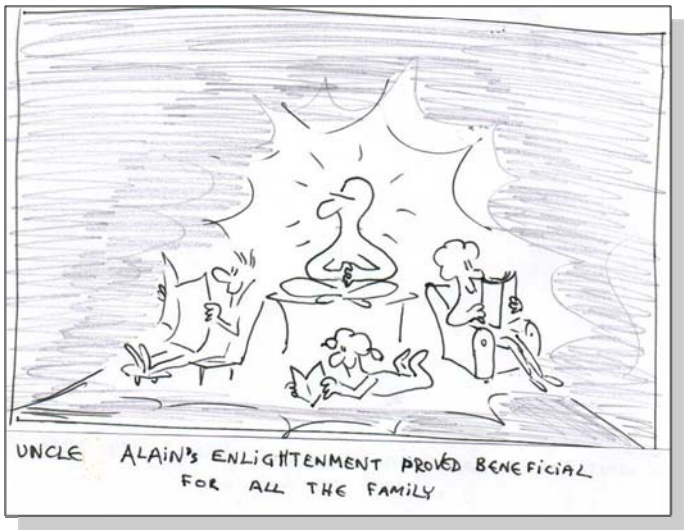
His second Teacher is a remarkable man who spent a number of years in his early teens with a Tibetan monk in Tibet. He did not return to France until his late adolescence. Forget talks to him regularly.

Forget has experienced what he calls entering the void. He has also written a book titled *'How to Get Out of this World Alive'* (Forget, 2008), in which he describes his philosophy. He has developed, he says, a number of methods, which can clear his students' past mental traumas and allow them to reach what he believes is a higher level of consciousness, an area of no space, no time.

Those who have entered this void, he says, have a continuous core of joy at their centre. They have lost their overwhelming sense of 'I' and their consciousness is no longer identified with their ego. They seem to be at a different level.

Forget is able to "transmit light" to his students. When he does this, he says he enters a different mental state of no space, no time in which others see him as radiating light, love and energy. His students perceive light of various colours surrounding him and feel energy running within them (Fenwick, 2019). He describes this state as 'dying to his ego'. When Forget 'dies', which he does on a daily basis, he explores the 'no space no time' dimension of the post-death world, sometimes with his teacher.

Forget has allowed himself to be examined by scientists when he was in this state. They looked at changes in his brain function, via EEG and fMRI, as he gave light. They also researched how his student's brains were responding as he transmitted it (Fenwick et al., 2018).



The results of these examinations show that Forget's brain activity changes dramatically when he gives light. Faster brain rhythms, high gamma activity, were seen at a high amplitude, spreading widely across his brain. This is a distinctive and very unusual picture. Analysis of his brain and of a student's brain together suggested that during the transfer of light, their brains' activity became entangled. It was apparent that Forget was driving certain

areas of the student's brain, and that the student was responding with an alteration to Forget's brain areas. (Fenwick et al 2018).

Since 'entering the void', Forget says that he is no longer afraid of death. When he stands back and enters the void, he becomes multi-dimensional. At times, he explores 'no space no time' with his teacher.

These levels correlate with another state of being which he enters and which he says has a special quality to it. He also states that at his physical death he will permanently enter this 'no space no time' area which he defines as the area into which all humans who have entered the void will go. But, he insists, this area has nothing to do with time and space.

So here is a man, Your Honour, who says he has experienced "death" on many occasions, and who is able to describe no time no space (the after-life) in detail on his return through the limitations of his current filter.

Judge: I see that the Counsel for the sceptics wishes to raise a question.

Counsel for the sceptics: Your Honour, this is all hokum-pokum, woo-woo, all disturbed brain function

Dr. Fenwick: This is not hokum, it has all been recorded on EEGs and fMRIs (Fenwick et al., 2018). Forget, like certain other individuals (Martin, 2019), has developed special aptitudes: the light he gives and the experience of a refined mental state which correlates with very unusual brain functioning, the alteration of his filter. This has been shown and verified scientifically. He has the capacity to transfer this light to many people near him and at a distance. That is not hokum.

Judge: What say you to this?

Counsel for the sceptics: These phenomena are not recognised by science.

Dr. Fenwick: Many scientists accept that our present reductionist science is not wrong, but incomplete and that it cannot answer all the anomalies ("Galileo Commission Report", 2019), especially unknown energy level anomalies, which are found and experienced.

Judge: ***I find the case proved, on the grounds of being beyond reasonable doubt. Actually, it adds momentum to my previous call, for a new science of consciousness, which remains open and valid.***

Be upstanding in Court, the Judgment has been given.

Chapter 11 References and Bibliography

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