# THE META-PHYSICS OF HUMAN CONSCIOUSNESS

BY

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#### **PREFACE**

My decision to publish this paper represents the logical conclusion to which my previous work has led. Some of that work concerned the nature of consciousness and its relationship to the general structure of the universe, the numerical relationships between the values of the various physical constants and the general geometry of space-time. It is my work on the interface between the quantum world and the classical world combined with the proposition that Gravitational Electro-magnetism is a real physical property of matter and which exerts a real force in the physical world that has led to the further proposition that there is indeed a meta-physical dimension to the structure of the universe. I submit that this meta-physical dimension is a form of Platonic consciousness which is all-pervading throughout the entire universe and I have given this dimension the name of Universal Secular Consciousness (USC). I am of course aware that this concept is neither new or unique to myself. Nevertheless it is the conclusion to which I am inevitably drawn.

Obviously I am aware that in the climate of aggressive secularism which presently holds the intellectual high ground, that the views expressed herein will experience some heavy criticism. However I hold to the view that scientific dogmatism is just as undesirable as religious dogmatism in that neither of these attitudes leaves room for doubt or question and therefore I am prepared to take any of this or criticism of this or my previous works on the chin, so to speak.

#### **CHAPTER 1**

In my previous papers "The Geometry of Space-time" and "On the Gravitational Effects of an Electro-magnetic Wave", I described how it is that electromagnetism and gravitation are both expressions of a single universal force which shapes the physical environment in all its states and dimensions and which I call Gravitational Electro-magnetism.

The forces of electromagnetism and gravitation can be unified to some extent when an expression is found which unites both quantum theory and gravitation. The required unity can be found in the following expression where *z* represents the change in frequency of an electromagnetic wave which is under the influence of a gravitational field. The expression is:-

$$z = \frac{gr}{c^2}$$

Generally z has been thought of as being a dimensionless number but this is not in fact the case because g has a value at the quantum level which is given by:-

$$g = \frac{c}{t_p} \qquad \text{(Here } t_p = \text{Planck time)}$$
$$\therefore g = \frac{3 \times 10^8}{5.4 \times 10^{-44}} = 5.6 \times 10^{51}$$

and this in turn leads the calculation of a value for z as follows:-

$$z = \frac{(5.6x10^{51})x (1.6x10^{-35})}{9x10^{16}}$$
$$\therefore z = 1 = \frac{9x10^{16}}{9x10^{16}}$$

(here  $1.6x10^{-35}$  = Planck length)

Thus we can draw two conclusions. The first is that contrary to the received wisdom, forces similar to gravitational forces do indeed exist at the quantum level and at far greater strengths than is generally believed to be the case and these forces are not in fact weaker than electrical and chemical forces. Secondly, at the quantum level it is the light/time cone which shapes the geometry of space-time because as soon as the diameter of the time/light cone exceeds the Planck length, the superposition of states at the quantum level is broken and a choice of states is made.

As shown in another of my previous papers entitled "On the Relationship between Quantum Theory, Gravitation and Human Consciousness" it is this symmetry breaking which produces both the arrow of time in the classical universe and also the admission of the arrow of time into the consciousness of sentient beings.

Symmetry breaking occurs as a result of the influence of a gravitational force which is of greater magnitude than the quantum gravitational force previously described, and which, I submit, is manifested in the gravitational force exerted by the mass of the entire universe at any particular point in space-time.

Returning to the unitary value of z we remind ourselves that time is reversible at the quantum level. As time has no direction at the quantum level we can infer that if time does not exist at that level then neither does space. In other words the quantum world is in fact a dimensionless world which only takes on a dimentional form at the interface between two gravitational forces. Furthermore, the quantum world which I am describing is really represented by a dimensionless field which is all pervading throughout space-time but at the same time exists only as a point. In other words the quantum world possesses a duality which is totally unlike any other manifestation of nature. Thus we can

understand how it is that so-called "action at a distance" events can occur in the quantum world because in that world there is no distance or time, only a point.

At first glance the idea that there exists a state of matter which is at the same time both a dimensionless point and which at the same time pervades all space in the form of a field may seem to be an unreasonable statement and I was, at first faced with the problem of describing this state of duality in a more rigorous mathematical form but fortunately the medium of projective geometry is available to us.

It will be recalled that through that medium it is possible to "map" a set of distinct points in space on to a distinct set of lines (or by inference, onto shapes or volumes) in space. Similarly it is possible to "map" a distinct point in space on to the lines which define a distinct area of volume of space. More formally we can state that any distinct set of points on a line are co-linear and conversely that any distinct set of lines which converge on a point can be described as being co-punctal.

In Fig.1. the point at infinity O can be described as a transpose of the area A,B,C,D etc. and therefore we can conclude that the area A,B,C,D or the volume of space bounded by A,B,C,D,E,F,G,H is contained within the point O. Similarly the volume A,B,C,D,E,F,G,H is a total reflection of the volume A rotated through 180° and projected at B.

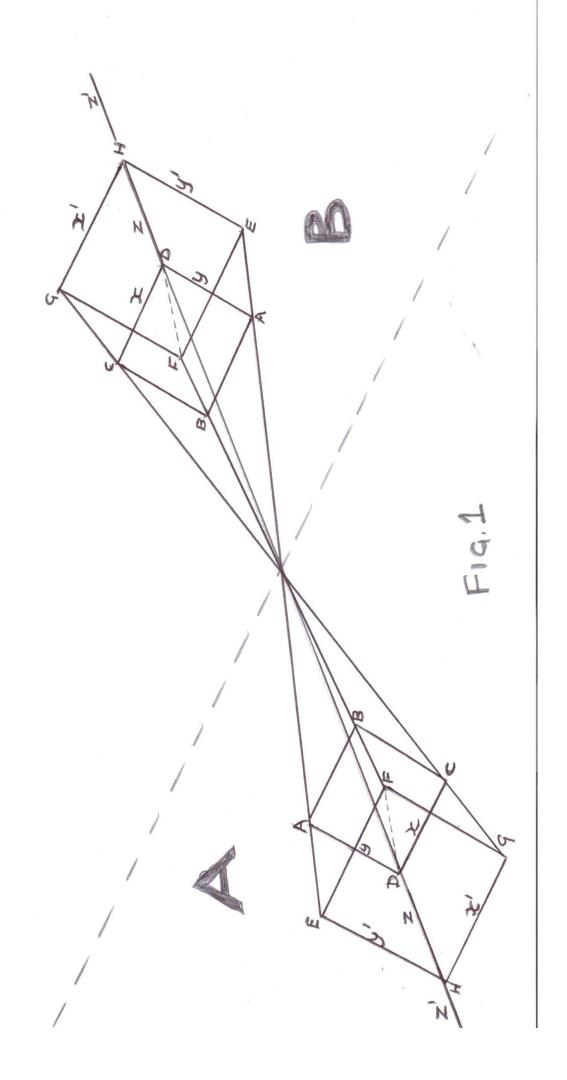
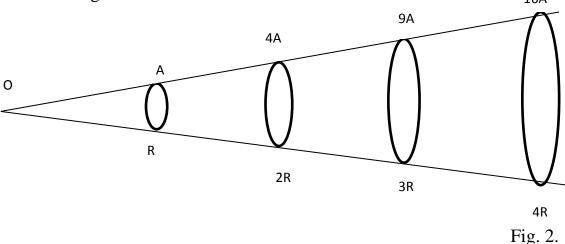


Fig. 1. Can also be expressed as if it were a conical light cone describing a converse square format as shown in Fig. 2. below and thus both dimensions A and B within the two light cones are each opposite rotations through 180° and are mirror images of each other.



My proposition is that this projection represents the existence of a 4<sup>th</sup> dimension which exists side by side with the classical universe of which we are all aware.

The closest I can come to describing the point O is by applying an inverse Fourier transform which turns the frequency z into a function of time i.e:-

 $f(t) = \int_{-\infty}^{\infty} F(z) e^{2\pi i z t} dz$ . Here z is the change in wavelength of an electromagnetic wave under the influence of a gravitational field and similarly

 $\Delta \emptyset = -\left(1 - \frac{f_2}{f_1}\right)$  represents the change in gravitational potential due to the change in frequency of an electromagnetic wave.

Fig. 1. Above demonstrates an interesting aspect of the duality of space-time at the quantum level by introducing the real and imaginary axes of the diagram as shown in Fig. 3. below.

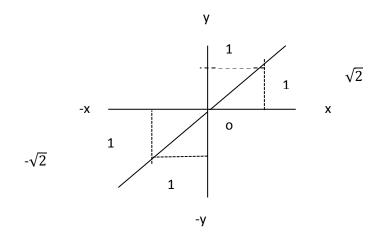


Fig. 3.

Since x + iy = cosA + i sinA then  $x - iy = cos\pi + i sin\pi$  and thus we can infer that x = iy = -1 and similarly -x - iy = +1 it follows that  $e^{\pi i} + 1 = 0$ 

and  $e^{\pi i} = -1$ . Thus either way, as far as an observer at O in Fig. 1. is concerned the condition  $e^{\pi i} = -1$  and  $e^{\pi 1} + 1 = 0$  represents an identity and therefore at that point both space and time cease to exist in the generally accepted three or four dimensional form as proposed herein.

Coincidentally an interesting outcome of this observation concerns the proposed preponderance of dark energy and/or dark mass in the universe. Referring again to Fig.3. we can note that the modulus of the proposition can be written as:-

$$|-1 - i1| = \sqrt{1 + 1} = \sqrt{2}$$

$$\therefore Arg(-1 - i1) = -\left(\pi - tan^{-1}\frac{1}{1}\right)$$

$$= -\left(\pi - \frac{1}{8}\pi\right)$$

$$= \frac{7}{8}\pi$$

Similarly:-

$$|1+1| = \sqrt{1^2} + \sqrt{1^2} = \sqrt{2}$$

$$\therefore Arg(1+1) = tan^{-1} \left(\frac{1}{1}\right) = 45$$

$$= \frac{1}{8}\pi$$

In other words depending on whichever observation point one adopts, then one dimension has a preponderance over the other.

We can sum up by re-stating that the quantum world exists only at the point  $\theta$  where time does not flow and also that the classical world only comes into existence as the wave front expands. Expansion of the wave front is triggered at the point of interface between two opposing gravitational fields as previously described.

### **CHAPTER 2**

For many years the focus of theoretical physics has been on interpreting quantum mechanics with regard to its meaning and relevance to classical physics and it is probably fair to say that very little progress has been made in this direction and that the two physical "systems" are incompatible with each other and I submit that the reason for this is that our understanding of both systems is incomplete and that some form of new physics is required. At the interface between the quantum world and the classical world, a quantum event is magnified to the classical level where there is an increase in the wavelength and a reduction in the frequency of the electromagnetic state of the quantum system where the complex number weighted ratio becomes normalised by the action of  $i^2$  and the two wave functions interfere with one another and which causes a change in wavelength of the quantum wave function. It is in this way that the secular conscious world is effectively making a measurement or observation of the quantum field and this is where the squared modulus of complex numbers takes effect, that is to say that when a measurement is made there is a large magnification of a physical process raising the quantum level to the classical level and this large magnification is manifested in the expansion of the quantum wave front of the event.

Thus it is not mass that needs to increase for consciousness to appear but another force acting as if it were a large mass.

In Chapter 1 I have shown that, contrary to the received wisdom, gravitational forces do in fact exist at the quantum level and that these are manifested by way of the Gravitational Electro-magnetic force as previously described and also that the time symmetry of the quantum world is broken at the point of observation to produce the time a-symmetry of the classical universe.

From a philosophical point of view, the problem with physicalism is that there is a knowledge gap between present knowledge and what may become known in the future. This means that at present we do not have sufficient knowledge to describe not only certain aspects of classical and quantum physics but also to describe exactly what consciousness is. Thus a new physics is required and I propose that Gravitational Electro-magnetism is added to the sum total of knowledge about both the classical universe and quantum mechanics. I further suggest that Gravitational Electro-magnetism is part of the process by which consciousness occurs, albeit it does in no way contribute to a description of exactly what consciousness is!

It has been proposed by Penrose and Hameroff that consciousness arising in the brain is the product of a coherent quantum state which occurs over large areas of the brain with all the simultaneity and entanglement inherent in quantum systems. They further suggest that these quantum effects occur within the

microtubules of the cytoskeleton of the neuron. This area of the brain is confined to narrow dimensions of some 14 n.m. where quantum effects can be shielded from entanglement with the macro-environment. One of the main reasons for thinking that consciousness arises in the microtubules is that once there is an interruption to the function of the microtubules-for example through the introduction of anaesthetics- then consciousness is lost and synaptic activity which is controlled by actions within the microtubules, ceases.

Since consciousness occurs on the large scale in the brain then we can infer that it is caused by a large scale external force. Since individual quantum events probably cannot in themselves produce the required effect of general consciousness, it is proposed that consciousness occurs at the interface between quantum gravitation and classical gravitation.

Possibly against my own better judgement, I am forced to conclude that metaphysics will have to be brought into the equation so to speak. It is well known that the solution to certain equations of General Relativity indicate that black holes contain singularities of infinite mass but one is forced to ask oneself: How many infinite masses can there be? The word infinite, by definition, means all the mass that there can possibly be and there can therefore only be one infinite mass and that infinite mass is that contained in the entire universe itself.

Secondly, I propose that the universe contains a universal secular consciousness (USC) which prevails throughout the entire universe and in all dimensions of space and time and that this field is in a state of superposition with the outcome of the collapse of the wave function. Therefore I conclude that this secular consciousness is itself infinite in just the same way as the mass of the entire universe is infinite.

Tegmark (Physics World 2014) points to two hypotheses. The first is called the External Reality hypothesis that is to say that there exists an external physical reality completely independent of we humans. The second hypothesis is the Mathematical Universe hypothesis , that is to say that our external physical reality is a mathematical structure. This reflects Karl Wigner regarding "the unreasonable effectiveness of mathematics in the physical sciences".

There are several other points of contention with regard to conventional interpretations of quantum theory which are worthy of discussion. Wigner (1961) stated that quantum measurement occurs only as a result of conscious intervention by an observer. Similarly Hameroff 2013 states that the discontinuous jump that the wave function makes is attributed to the change in knowledge that the result of the measurement has on the observer.

At this point I should state emphatically that I am a convinced Platonist, certainly with regard to Plato's philosophy of forms. I find it very remarkable

that Platonic forms come to represent real physical forms and conversely that physical forms are represented by Platonic forms. One of Plato's ideas was that mathematical discovery is very similar to the act of remembering some piece of knowledge which was already held as part of some greater universal consciousness and again this is also an idea to which I am greatly attracted.

A second point which I do find even more remarkable is the concept of phase space as described by Penrose in which he points to the absolutely unique set of circumstances which must have been "chosen" at the point of origin of the Big Bang and from which the universe has evolved to the point where we are now. In fact one might conclude that this unique event was somehow involved in the so-called Anthropic principle. That unique initial position of the universe is given as  $1/10^{10^{123}}$  or one chance in  $10^{10^{123}}$ , a staggering state of uniqueness that would be impossible to write down on ordinary notation.

What is the significance of this state of precision? Why was it that this particular state of matter was so precisely organised at that particular point in time? The answer to both these questions must lie somewhere in the present and somewhere in the state of order in which we now find the universe to be. In other words, that very precise starting point in the history of the universe could only have led to the state in which we find ourselves now and to the particular state of consciousness that we occupy at the present time.

For a choice to have been made there must have been some form of consciousness present to have made that choice and furthermore that consciousness must have had some objective in mind at the point at which the decision was made. This leads one to conclude that some form of consciousness existed before the Big Bang occurred. In other words this is rather similar to the hypothesis whereby a particular set of circumstances i.e. the Big Bang (which must have included all the outcomes which resulted from the Big Bang) is admitted into an already existing state of consciousness. That is to say a state which existed separately to the states contained in the Big Bang.

There is no way of proving this hypothesis other than by applying the previously described merger of two wave functions and hence we can only speculate and agree with Whitehead's view (1929) and (1933) that the precursors of consciousness have always been present in the universe and that biology evolved a mechanism to interpret and understand those precursors. Thus it follows that unless the pre-existing conditions or forms already existed in some form of consciousness, then the initial conditions pre-programmed into Big Bang could not have developed in the way that they did. My own view is that the proposed USC in fact combines all those qualities i.e. it is independent of human consciousness but its knowledge or memory is accessible through the

interaction with human consciousness, it is mathematical in nature and it consists of an all pervading and infinite field.

Now of course there was a time in history when there were no sentient observers of any kind present, that is to say that long before the development of life on earth quantum events occurred. Thus it cannot be the case that it is the intervention of a human or even a sentient conscious observer that causes collapse of the wave function, so from this point of view it would seem that the Copenhagen interpretation of quantum mechanics appears to be somewhat absurd.

However this does not mean to say that some other form of consciousness has not been present to make the necessary observations which allow quantum measurements to be made and this is a view to which I myself am attracted. This being the case, what kind of consciousness can this be and how could it be manifested?

These considerations lead one to pay much closer attention to a metaphysical understanding of the question of secular consciousness.

Let us examine the concept of a universal consciousness in more depth. Despite various claims to the contrary, the fact is that many questions surrounding collapse of the wave function have not yet been resolved. However it does appear that the point in space and time where collapse of the wave function occurs is somehow connected to the point in space and time that lies between the state of consciousness and un-consciousness so it may seem sensible to firstly attempt to define exactly how consciousness arises.

Penrose has famously attempted to establish that the brain and therefore consciousness are not processes which act in a similar way to computational processes. Penrose's position is based upon Godel's famous un-decidability theorem which proves that mathematical understanding cannot be reduced to blind computation (SOTM P.56). Similarly Penrose asserts that understanding generally cannot be reduced to blind computation and cannot be simulated by any form of computational procedure.

A computer performs calculations without understanding what it is doing but it is utilising the understanding of it's human programmers. The quality of possessing understanding implies that there exists a quality of awareness which can only be a quality of a sentient living entity. The difference between a human and a robot is that a human has life and as soon as life is extinguished, understanding and awareness all cease to exist also.

A particular aspect of the USC hypothesis which is worthy of further discussion is the question of memory. It is a fact that very many attempts have been made to locate the areas of the brain where memories are stored but no traces of the

precise sites of memory have been found. Large areas of the brain seem to be involved in the process of retrieving memories but these areas are by no means precisely located in the brain and it is a fact that the regions of the brain which have been involved in the learning process, if removed, are not necessary for the retention of memory. In fact in certain cases, individual brains have been found to be largely lacking in mass altogether and yet the individuals concerned have been able to function in a very nearly normal manner and to be able to "retain" memories perfectly satisfactorily.

Another phenomenon worthy of mention is the fact that single cell organisms – which by definition have no nerve cells and yet these creatures have been shown to respond to actions instigated by outside stimuli after they have been "trained" to recognise these stimuli and to "remember them". This leads to the question "How is it that memories are stored and then accessed? If memories were in fact stored in the brain it would be necessary for some form of retrieval system to also be a part of the brain's anatomy, somewhat in the style of a memory retrieval system in a computer. The problem with this hypothesis is that the retrieval system would require another layer of memory accompanied by another retrieval system and so on thus leading to an infinite regress. It seems unlikely that this could be the case for a single cell organism which does not possess a single nerve cell and it seem very unlikely that the human brain could accommodate sufficient capacity to store a regress to infinity. This being the case it would seem possible that memories are not in fact stored in the brain at all but are stored somewhere else. I will return to this point later but first it is worth briefly discussing some of the mechanisms of the brain's activities.

An interesting topic in this regard is the question of inheritance of physical and mental characteristics via the genetic code. It is widely considered that the genetic code carries information from one generation to the next and that the genetic code can be described in enough detail so that the future development of the next generation could be described in minute detail with the added bonus that any latent defects could be rectified through genetic engineering. In fact this has turned out not to be the case and the whole genetic code has been shown to contain a far fewer number of genes than was originally anticipated. The reason for this is, in part, that genes carry sufficient information for the creation of various proteins but the genes do not carry the information required to instruct those proteins to form themselves into the various organs and physical components of the organism and nor do they carry the information to instruct those components as to how they will function and what purpose they will fulfil. Thus it would seem to be the case that genes do not carry any form of memory as to what the function of the various "folded" proteins should be. This being the case clearly the "memories" required by these various components must be held somewhere, but the question is- Where? It could be the case that these components could obtain their information as to how to

behave and develop from some form of collective memory gained from the experience of previous generations, but again that memory must have been stored somewhere.

Memory is generally thought to be synonymous with consciousness, however memory is not the same thing as consciousness. Consciousness is in fact the vehicle by which we become aware of memory and by which we access the store of memory. If consciousness arises in the microtubules which are part of the structure of the dendrites, consciousness cannot become a part of a sentient organism until after the dendrite has been "folded" into shape-so to speak- by the proteins transmitted or passed on by DNA and the genetic code. Therefore we can surmise that it must be another memory and another consciousness existing elsewhere which directs the "folding" of the proteins into the structure of the microtubules which in turn provides a platform for the development of consciousness. I have already shown that the microtubules possess internal dimensions which are sufficiently small to accommodate the gravitational electro-magnetic effects of the two contrasting gravitational forces as previously described).

All the foregoing being the case, I suggest that the principle function of the brain is to interface and connect with the USC which is the repository of all collective information and that this connection is made through a consciousness which is manifested through the electrical activity within the neurons. This electrical activity causes changes in the electro-magnetic field within the neurons thus causing changes in the frequency and wavelength of those electro-magnetic fields and I suggest that this change is instigated by the action of the two contrasting gravitational fields as previously described and which causes the organism to raise it's state of awareness from the un-conscious to the conscious by entangling it's wave function with the wave function of the USC.

## **CHAPTER 3**

My own view of the nature of consciousness lies somewhere between Penrose's categories C and D (SOTM P.12) which obviously implies that I am of the view that some form of meta-physical forces must enter into our understanding of the nature of consciousness and as will be seen, possibly also an understanding of the processes underlying quantum theory. As previously stated I have no embarrassment in saying that I am a convinced Platonist and I believe that physical reality somehow emerges from the Platonic world. Although reference to Platonic forms may seem to be a little esoteric, no-one can deny the underlying mathematical structure of the universe even including such curiosities as complex numbers etc., not to mention the existence of all the

natural numbers including the primes, Fibonacci numbers and many other curiosities of mathematics too numerous to mention here.

Further I would go so far as to say that abstract concepts or qualities such as "the good" and "beauty" etc. are just as real as the physical constants which also emerge from the Platonic world. I do not believe that the Platonic forms are conjured up out of the human mind but that they are components of a greater universal consciousness. Computers outstrip humans in the speed of calculation but not in the actual ability to calculate and I believe that Godel's proof shows that human insight is beyond computation. That is to say that there is a world out there that is beyond computation and which is therefore inaccessible to proof by computational methods. My recent paper entitled "Further notes on the relationship between Quantum Theory, Gravitation and Human Consciousness" attempts to establish where the interface between consciousness and the quantum world lies by describing a form of "new physics" although I am not confident that this will in itself provide any complete answers. Nevertheless awareness is somehow able to make contact with Platonic absolutes which in turn impinge on consciousness.

In accepting the existence of the Platonic forms we are obliged to accept certain concepts which could be analogous to axioms in formal logic. For example, some people have difficulty in understanding the influence of an abstract world on the physical world because that would mean that the abstract world is just as real as physical world. Platonic values are embedded in the fundamentals of space-time geometry just as are dimensionless numbers and the fundamental constants. Similarly the actual constitution of an object must play a role in determining if there is a mentality present in association with it (SOTM P.17).

If there exists such a thing as a universal secular consciousness (USC) then we ask ourselves "What is the nature of that consciousness?" I have already stated that I am by instinct a Platonist and this seems to me to demonstrate that there is an interface and interconnectedness between conscious minds, unconscious processes and possibly a greater kind of cosmic consciousness. From this concept we are led to examine, if possible, the nature of consciousness and the ability of the human brain to imagine and visualise different scenarios and more particularly those concepts which Penrose would describe as being noncomputational. Visualisation does not necessarily arise from visual experience but from imagination. The ability to imagine is to some extent derived from worldly experiences and from stored knowledge. More importantly the human brain can resolve complicated situations which have never before been experienced and the brain utilises some kind of non-computational procedure in order to trigger awareness and to reason or visualise non-computationally. Whatever it is that controls and produces mental processes must, I submit, be part of the same grand scheme which governs the material properties of the

universe at large and which could include the USC as previously proposed. Furthermore it has been proposed that the experiences of conscious existence somehow continue after death, in that quantum information may remain in the "aether" at the Planck scale of geometry.

Hameroff has pointed out that biology converts the precursors of consciousness into consciousness itself and clearly this is an area which merits further discussion and this is similar to the wider proposal by Whitehead that biological mechanisms enable us to understand physical and mental processes.

Previously I have described what I believe to be the point at which consciousness occurs in the human brain but I am totally unable to discover what is, for example, the flash of insight which causes an original idea to form in the brain. Others have expressed the opinion that such processes are algorithmic and to the contrary, others have claimed that it is not algorithmic. Of these two my own opinion is that the process is not algorithmic because if it were algorithmic we would be well on the way to understanding it by now and we are not, therefore my view is that we must look outside conventional physics and address our attention to the metaphysical.

A question that we should ask ourselves is "What was the state of the universe before the arrival of conscious beings?" I ask this question because some quantum theorists propose that quantum events are only raised to reality by the intervention of a consciousness which is able to make an observation. Obviously the precursors of consciousness must have been present prior to the development of sentient beings, and also we know that quantum events occurred long before the arrival of conscious beings and yet some people cling to the view that quantum events are only raised into reality by the presence of an observer. If this is indeed the case then who or what was "observing" the universe prior to the advent of human beings or at least some other form of sentient being? It cannot be that only human consciousness causes the collapse of the wave function and that quantum events in the universe unobserved and far away are or were influenced by human activity. It is seems clear that there must be other influences at work in the universe which are at present completely unknown and undetected and this confirms my own view is that there exists a USC underlying the structure of the universe and existing alongside the physical and mathematical world as we know it. My own view is that the existence of this USC underlies the quantum effects such as those which have been observed in, for example, the Aspect experiment. Let us not delude ourselves –the results of the Aspect experiment and other similar experiments are real and quantum entanglement is a reality and since the answers to these puzzles have not yet been found it would seem appropriate to look outside conventional physics for an answer.

It seems to me that one cannot address this question without touching on the connection between the quantum world and the nature of consciousness itself and that non-local quantum events must somehow be entangled with the structure of the universe in general and more particularly with the USC as previously described.

In any E.P.R type two armed experiment, when a measurement is taken in one arm of the apparatus we know that the other measurement will be opposite to the one we have taken no matter how far apart the two measurements are taken. The first detector on reading the spin-up measurement would be seeing part of a total wave function whose spin state was already known to the universe or shall we say, known to the USC. Furthermore it appears that collapse of the wave function occurs at the point where the observer's own conscious wave function interfaces and interferes with the wave function of the cosmic consciousness. It is said by some that it is the act of observation which causes the collapse of the wave function. Thus if an observer was able to influence a quantum event then one could postulate that the mere fact of opening one's eyes would precipitate a quantum event and thus the quantum event in question would have been precipitated by will power alone. I see this as an unlikely scenario.

#### **CHAPTER 4**

It may seem to be an odd thing to do, to follow a discussion about quantum mechanics by a discussion about an Ontological Argument, when considering any meta-physical understanding of consciousness but my reason for including the Ontological Argument at this stage is that it's method of logic seems to lend itself to confirming the idea of a USC.

Ontology is defined as the study of the nature of existence and reality and it would seem possible to be able to apply the Ontological Argument to the possibility of the existence of a USC and my proposition is that the USC can be described as follows.

- 1/ Any understanding of secular consciousness is of state of consciousness of which no greater can be conceived (that is to say that if secular consciousness permeates all states and dimensions of the universe then no greater consciousness can exist).
- 2/ The idea of secular consciousness exists in the mind.
- 3/ An idea which exists both in the mind and in reality is greater than an idea which exists only in the mind.

4/ If secular consciousness only exists in the mind then we can conceive of a greater secular consciousness, that is to say a secular consciousness which exists in reality.

5/ We cannot be imagining a state of consciousness that is greater than secular consciousness, that is to say a state of consciousness which exists in both the mind and in reality.

6/ Therefore secular consciousness exists.

It seems to me that if a secular consciousness exists then certain axioms can be deduced and that two further kinds of proof for the existence of a secular consciousness can be described.

The first of these proofs can be applied to a Proof by Contradiction which requires the establishment of two axioms which are as follows:-

Axiom 1-Human consciousness exists

Axiom 2-The state of secular consciousness is a greater state than the state of human consciousness because secular consciousness incorporates the collective consciousness of the entire universe.

The Proof by Contradiction can then be stated as follows:-

1/ If the greater state of secular consciousness can be conceived as not to exist then the greater state of secular consciousness can be conceived to exist.

2/ A state of secular consciousness of which no theory can be conceived cannot be conceived not to exist.

3/ Therefore secular consciousness must exist in reality.

In a similar manner the existence of the state of secular consciousness can be expressed as a necessary truth in formal logic in the expression as follows:-

$$(p \supset r) \supset [(q \supset r) \supset ((p \lor q) \supset r)]$$

Which in plain language is expressed as:-

If (if p then r), then [if (if q then r) then (if (either p or q)then r)].

Now in re-stating both the axioms 1 and 2 above we can define the positions p, q and r as follows:-

Let p be expressed as:- An idea which exists both in the mind and in reality is greater than an idea which exists only in the mind

Let q be expressed as:- If the idea of secular consciousness exists only in the mind then we can conceive of a greater consciousness i.e. one which exists in reality as well as in the mind.

Let r be expressed as:- We cannot conceive of a greater consciousness which is greater than secular consciousness therefore secular consciousness exists.

The forgoing can be described as a form of Ontological Argument for the existence of secular consciousness as well as being an argument in formal logic and therefore we now have forms of proof for the existence of secular consciousness.

To conclude, I have a few comments to make about the nature of consciousness and the vexed question of dualism and the mind/body debate. Materialists maintain that materialistic science is the only kind of science that exists, but in fact this view must surely give way to the subjectivity of quantum theory which requires the input of an observer or at least some form of conscious potential.

Taken to its logical conclusion materialism must mean that we deny the existence of our own minds and consciousness because materialism cannot be explained without the input of some form of consciousness. Sheldrake (2013) points out that Dawkins' "selfish gene" is seen as a rhetorical device but in fact if Dawkins' theory is to hold water, then the gene does in reality feel some form of selfishness i.e. it is in fact it's own self.

Finally I would contend that human minds are entirely different from inanimate matter and that being the case it may be that if human consciousness is immaterial, then it may survive after death.

**END** 

#### REFERENCES

Shadows of the Mind. Penrose 1994

The Science Delusion Sheldrake 2013

Consciousness in the Universe Hameroff 2011