## THE

ONTOLOGICAL

ARGUMENT

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I am beginning this investigation without having any clear idea as to where it might lead. Generally speaking, those who wish to expound on a particular subject have already completed all the research and know at the outset what the conclusion of their particular treatise will be. However, in this particular case, although I did indeed commence my research with a clear idea of the proof of the Ontological Argument which I wished to expound, as time went on my research led off in various directions to produce some unexpected results. The outcome of this turn of events has at this time, left me in a state of uncertainty about the outcome of any proposal, so much so that it may be that the proposition for the existence of God may be formally undecidable and so at this time I commence on a journey having no firm idea of where the journey may end.

Some years ago, while attending a short course on general philosophy, I was introduced to St. Anselm of Canterbury's eleventh century Ontological argument for the existence of God. At first sight I was immediately struck by the possibility that Anselm's argument held within itself certain propositions or axioms which may of themselves be expressed in formal logic expression as a proof of the existence of God.

As previously indicated, at the time of writing I am honestly not sure if any form of proof of the Ontological argument has been achieved but I must stress

that this piece is not written to expound any particular religious dogma or philosophy, indeed I do not subscribe to any such notions. However, I am persuaded that there may be some truth in the notion that there may exist some kind of meta-physics or universal secular consciousness through which quantum reality is manifested. Needless to say, this idea clearly illustrates the uncertainties expressed in my opening paragraphs because it is something which has developed as the research into the possibility of finding a formal proof of Anselm's argument has developed.

First let us define the expression for a necessary truth as expressed in the terms of formal logic which is stated as follows:-

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

Which when expressed in plain language reads as follows:-

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

Secondly, I now take the liberty of describing the core of Anselm's argument as so succinctly expressed in the Wikipedia discourse dated 7/9/13 as follows.

"In chapter 2 of the Proslogion, Anselm defined God as a "being than which no greater can be conceived" and he suggested that it is human understanding itself which causes the being to exist in the mind. The concept must exist either only in our mind or in both our mind and in reality. If such a being exists only in our mind, then a greater being i.e. one which exists in the mind and in reality

can be conceived. Therefore, if we can conceive of a being of which nothing greater can be conceived then it must exist in reality. Thus, a being than which nothing greater can be conceived-which Anselm defined as God-must exist in reality".

Anselm's argument can be summarised as follows:-

1/ Our understanding of God is that of a being of which no greater can be conceived.

2/ The idea of God exists in the mind.

3/ A being which exists both in the mind and in reality is greater than a being which exists only in the mind.

4/ If God only exists in the mind then we can conceive of a greater being i.e. one which exists in reality.

5/ We cannot be imagining something that is greater than God

6/ Therefore God exists.

It should be noted that in Chapter 3 of the Proslogion, Anselm presented the notion of a being that cannot be conceived <u>not</u> to exist. He argued that if something can be conceived <u>not</u> to exist then something greater can be conceived. Consequently if "a thing than which nothing greater can be conceived to not exist, so it must exist".

Returning now to the expression for a necessary truth as quoted above, we can write as axioms extracted from the summary 1 to 6 above the following:-

Axiom 1 - p = existence in the mind.

Axiom 2 - q =existence in reality.

Axiom 3 - r = necessary existence in reality.

And therefore we can write:-

If (If the idea of God can exist(p) in the mind then can God exist(r)) then [ if ( if God can exist in reality then God exists(q) ) then if ( either God exists in the mind (p) or God exists in reality (q) ) then God exists (r) ].

Returning now to chapter 3 of the Proslogion as we can see that this can be construed as a Proof by Contradiction if the axioms for a Proof by Contradiction are written as follows:-

Axiom 1 -- p = Something can be conceived not to exist then something greater can be conceived.

Axiom 2 -- q = A thing than which nothing greater can be conceived cannot be conceived not to exist.

Axiom 3 -- r =Something greater can be conceived.

The foregoing may seem to represent a sound proof for the existence of God but since embarking on this line of research I have become aware of the proof of the

Ontological argument as submitted by Kurt Godel also using formal logic as his method of proof, and who would be prepared to cross swords with the founder of the incompleteness theorem. Well not I!! However it has been pointed out by some that Godel's "positive properties" are in fact sets of conditions so we ask ourselves "Is there yet another form of proof available to us?" and ask "Is set theory in any way involved in Anselm's theorem?" and the answer appears to be—Yes!

In some ways the Ontological Argument bears a striking resemblance to Russell's Antimony (or Russell's Paradox). To begin with it is as well to give a brief description of Russell's Antimony

Generally, objects and ideas can be grouped into sets or classes, the members of each set or class sharing some common characteristic such as the class of all red things or the class of philosophers for example.

Russell's Antimony distinguishes the various classes into two main groups. These are firstly the class of all normal classes which is described as a class which does not contain itself, for example the class of all philosophies i.e. the class of all philosophies is not itself a philosophy. Secondly, we have the class of all non-normal classes which does contain itself, for example the class of all thinkable things because the class of all thinkable things is itself thinkable and therefore it is a member of itself.

Now let N by definition stand for the class of all normal classes and we ask—Is N itself a normal class? If N is normal it is a member of itself (because N contains all normal classes). But in that case N is non-normal, because a class that contains itself is non-normal. But on the other hand, if N is non-normal it does contain itself, but in that case N is normal because by definition the members of N are all normal classes. Thus, it follows that N is normal only if n is non-normal.

Using the same reasoning, we now let N stand for the class of all provable truths (and we say that one of those provable truths is that God exists).

Thus, we can ask "Is N itself a provable truth?"

If N is a provable truth it is a member of itself (because N contains al provable truths).

But in that case, N is a non-provable truth because a class of provable truths which contains itself is non-provable.

But on the other hand, if N is a non-provable truth it does contain itself, but in that case, N is a provable truth because by definition, the members of N are all provable truths.

Thus, it follows that N is a provable truth only if N is a non-provable truth.

Thus, God exists only if God does not exist. Thus, the question is formally undecidable.

But is this really the case? Perhaps it is possible to use set theory (which as described above is the same as utilising qualities or properties which are in fact sets). If we return to our usual expression for a necessary truth:-

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

and again, noting that N is defined as the set of all sets which are members of themselves we can ask the question "Is N a member of itself?" Now let:-

Axiom 1 be :- p = A normal set (i.e. it does not contain itself).

Axiom 2 be :- q = A non-normal set (i.e. it does contain itself).

Axiom 3 be :- r = N = A set of all sets that are members of themselves.

then we can write :- If (if p is normal it is not a member of itself) [if ( if q is non-normal it is a member of itself) then if either ( p is not a member of itself or q is a member of itself) then N(r) is a member of itself]. But if in fact the definition of N is taken to be "not a member of itself, then the expression is not a necessary truth and the proposition is again un-decidable and we are back to square one in saying that God exists if God does not exist and conversely God does not exist if God does exist.

Is there another way that God's existence could be proved say through general arithmetic?

Albeit that the attempt to construct a proof through the use of set theory and Russell's Antimony has failed, it may be that it has left us with a window of opportunity to attempt to construct a proof through the medium of more conventional mathematics because set theory produces two straight forward and diametrically opposed alternatives namely p and q where r represents the sum of p and q which is the probability state of two alternatives.

The total probability for the whole system is: r = w + z. Therefore the two probabilities are each  $\frac{1}{2}$  and we have  $= z = \frac{1}{\sqrt{2}}$ .

There is something familiar about this expression in that it closely resembles the superposition of states as normally expressed in quantum theory. A super position in quantum theory is given by  $w|\alpha\rangle + |\beta\rangle$  with ay probability  $p = |w|^2$  and probability  $q = |z|^2$  and the probabilities of the two states are  $|B\rangle$  and  $i|C\rangle$  using complex number i weighting.

Another way of expressing this two-state system is to say that because each of p and q contain one class of theorem then r = p + q and the value of p and q is each having unit value 1 and therefore r = 1 + 1. Now raising the power of each expression we have:-

$$r^2 = 1^2 + 1^2$$

$$r^2 = 2$$

$$\therefore r = \mp \sqrt{2}$$

Thus, r is both positive and negative so to speak and seems to define the existence of two separate dimensions each "oppositely charged" in a manner similar to positive and negative energy as more formally expressed in quantum theory. Further I would suggest that the two dimensions involved here represent a rotation and reflection in space time and that it is at this point that we abandon the notions of God and religion and replace them with a singular concept which others have described as "secular spirituality".

Before examining the notion of secular spirituality in more depth, I have a word to say about ideas of God and religion. Unfortunately, these words bring with them the baggage of superstition and other frankly absurd ideas and practices which make the subject of spirituality very difficult to discuss by hopefully well educated scientists and philosophers. My submission is that the two dimensions p and q represent a universal spirituality which pervades all space in both dimensions and I now wish to call this dual state "universal secular consciousness" in order to step back from the previously discussed definitions of spirituality.

Let us examine the concept of a universal consciousness in more depth. Despite various claims to the contrary, the fact is that the question of collapse of the wave function has not yet been resolved but it does appear that the point in space and time where collapse of the wave function is somehow connected to

the point in space and time that lies between the state of consciousness and unconsciousness so it may seem sensible to firstly attempt to define exactly what consciousness is.

Penrose has famously attempted to establish that the brain and therefore consciousness are not processes similar to computational processes. Penrose's position is based upon Godel's famous incompleteness theorem which proves that mathematical understanding cannot be reduced to blind computation (SOTM P.56). Further Penrose goes on to assert that understanding generally cannot be reduced to blind computation and cannot be simulated by any form of computational procedure.

Now a computer performs calculations without understanding what it is doing but it is utilising the understanding of its human programmers. The quality of possessing understanding implies that there exists a quality of awareness which can only be a quality of a sensate 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.

My own view of the nature of consciousness lies somewhere between Penrose's categories C and D (SOTM) 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. I have no embarrassment in saying

that I am a convinced Platonist and I believe that physical reality somehow emerges from the Platonic world. Further I would go so far as to say that abstract concepts 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 conjoured up out of the human mind but that they are components of a universal consciousness. Computers outstrip humans in the speed of calculation but not in the ability to calculate and 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 and later I will attempt to establish where the interface between consciousness and the quantum world lies by describing some 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 which occurs because the abstract world is just as real as physical world and Platonic values are embedded in the fundamentals of space-

time geometry just as are dimensionless numbers and the fundamental constants

(Penrose). 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 the "solution" to the Ontological argument as outlined above shows that the

If the "solution" to the Ontological argument as outlined above shows that there could in fact be such a thing as a cosmic consciousness then we ask ourselves "What is the nature of that consciousness?" I have already stated that I am by instinct a Platonist and an extension of Platonism could be for example that while it is often said that the perfect triangle can only exist as one of the Platonic forms we can also say that if the "idea" didn't exist in the human mind then triangles themselves wouldn't exist. However, triangles do exist (selfevidently) therefore the "idea" of triangles must exist. 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 non-computational. Visualisation does not necessarily arise from say visual experience but from imagination. The ability to imagine is to some extent derived from worldly experiences and from stored knowledge but more importantly the human brain can resolve complicated situations which have never before been experienced and the brain utilises some kind of noncomputational procedure in order to trigger awareness and to reason or visualise non-computationally but what-ever it is that controls and produces mental processes must, I submit, must be part of the same grand scheme which governs the material attributes of the universe at large and which includes the cosmic consciousness a 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 and I shall return to this question later. Hameroff has pointed out that biology converts the precursors of consciousness into consciousness itself and clearly this is an area which merits further study.

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 log before the arrival of conscious beings and we know that quantum events occurred long before the arrival of conscious beings and yet as previously pointed out 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 events in the universe unobserved and

far away are or were influenced by human activity. 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 things as complex numbers etc. Not to mention the existence of all the natural numbers including the primes and Fibonacci numbers and other underlying curiosities of mathematics too numerous to mention here.

It is clear to me that there must be other influences at work in the universe which are at present completely unknown and undetected and my own view is that there does indeed exist what might be called a cosmic secular consciousness 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 secular coherent consciousness underlies the quantum effect such as those which have been observed in the Aspect experiment. Let us not delude ourselves –the results of the Aspect experiment and other 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.

It would seem to me that non-local quantum events must somehow be entangled with the structure of the universe in general and more particularly with the cosmic secular consciousness as previously described.

In any E.P.R type two-armed experiment, when any 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. There is another way to look at this phenomenon. Let us imagine that the whole experiment had been set up by a third party situated many light years distance from both detectors and equally both detectors were situated many light years distant from each other so that there was no possibility of communication between any of the parties. Now as soon as one party made a measurement say spin-up, that party would know that the other measurement would be recorded as spin-down. But consider this—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 coherent cosmic consciousness. Extrapolating this argument forward, (SOTM P. 322) we can say that the fact that all matter has been raised from a quantum state must mean that a universal consciousness exists. Furthermore, it appears that collapse of the wave function occurs at the point where the observers own conscious wave function interfaces and interferes with the wave function of the cosmic consciousness. While it is said by some that it is the act

of observation which causes the collapse of the wave function, then 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.

Returning now to the dual nature of the solution to the Ontological Problem as previously described, it may seem an odd link to make at this point but in fact my proposition is that the cosmic secular consciousness does have a dual nature which encompasses both positive and negative energy states as already manifest in the quantum world. My proposition is that these two dimensions of space-time represent a complete rotation through  $360^{\circ}$  and are a reflection of each other with time shown in the forward direction in both cases and that both dimensions are orthogonal to one another.

**END**