Article

Space, Time, & Consciousness (Part 7):

An Absolute Limitation to the Rational Analysis of Experience, Consciousness, & World Origin - The Principle of Interior Unknowability

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ABSTRACT

After working for approximately a decade to produce a defensible theory for how the world came to be, I realized that I had made zero progress. I questioned why that effort was entirely futile, and came to an interesting conclusion—the question itself implied an observational framework external to a Creation event, but scientists could never in principle locate externally as "privileged observers" to be able to see what happened. Thus, a new postulate for the metaphysics of creation was defined. This postulate was termed **the Principle of Interior Unknowability (PIU).** It was argued that the PIU stands on two legs of support. The first leg is an analogy posed about fishes born in a fish tank having no opportunity ever to locate outside of their tank. From their interior location in the tank, they (or scientists in the material world) would never be able to learn where it came from or how it was made; the same argument applies if the world were instead conceptualized to be infinite with no boundaries. The second leg is a conjectured analogy with Godel's Theorem of Undecidability, developed while he was working on his Incompleteness Theorems. This leg of the argument for the PIU reasons that postulates, axioms or assumptions based on internal observations of our world, applied to mathematically model its creation, are susceptible to creating a paradox (historically known as the Liars Paradox) by self-reference. To escape the potential for producing a valueless or misleading paradox, information would have to be gathered external to a system to be used for modeling its creation. Nevertheless, as pointed out by my friend Neil Siegel, a great deal of scientifically valid and useful information may indeed be acquired within the material world, despite the barrier to knowledge acquisition about creation postulated by the PIU.

Keywords: Interior unkowability, rational analysis, space, time, consciousness, creation.

> *For the truth of the conclusions of physical science, observation is the supreme Court of Appeal. It does not follow that every item which we confidently accept as physical knowledge has actually been certified by the Court; our confidence is that it would be certified by the Court if it were submitted. But it does follow that every item of physical knowledge is of a form which might be submitted to the Court. It must be such that we can specify (although it may be impracticable to carry out) an observational procedure which would decide whether it is true or not. Clearly a statement cannot be tested by observation unless it is an assertion about the results of observation. Every item of physical knowledge must therefore be an assertion of what has been or would be the result of carrying out a specified observational procedure.* Sir Arthur Eddington, The Philosophy of Physical Science

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The existence of existence reflects His ongoing persistence,
But when and where did He become the entire Kingdom
Mystery of mysteries for there is no way ever to know
Except by what He willingly tells or shows-- If even He knows
But how could He not see His own becoming
Because he once told me so,
That "Even I don't know"
- The author

Summary

An analysis is presented which demonstrates that definitive, complete knowledge about the origin of any system defined as classical or quantum, to include the entire world as a system, cannot in principle be achieved from any observation made interior to the defined system, or by inference from an interior observation. Definite knowledge about a system's origin requires an observational framework such that a "privileged observer" would be located external to the system. Regarding the world we inhabit, because we cannot ever observe it from its exterior, we cannot ever know or infer how it came into existence. Thus: ***Any question about the nature of the world's origin is not in principle one that may be addressed, much less answered, by observers constrained to locations within their world.*** By analogy, fishes born and living in a fish tank cannot possibly observe anything about the manufacturing of their tank's glass or the collection of the food and water placed into their tank.

Being always immersed in our material world, we likewise are incapable of observing the nature of its construction as might be seen from a perspective external to its existence. This metaphysic's hard rule of unknowability for an observation framework confined within any system (classical or quantum) is termed herein **The Principle of Interior Unknowability (PIU).** Note however, that this Principle is as yet only postulated, and not formally proven, as was accomplished by Godel for his Incompleteness Theorems. In the words of my friend Neil Siegel:

> I would make a "softer" characterization of a postulated PIU range of application: Gödel, in **proving** his Incompleteness Theorems, had the advantage of working within the artificial, rigorous system of mathematics. The real world is more complicated, and (so far, at least) not subject to such rigorous analysis at the system level. The PIU, in effect, only postulates (does not prove) a generalization of Gödel's proof. As I have noted before, our increasingly-capable observational tools have increased the zone for which we can make observations, and therefore, over which we can make measurement-based suppositions, and in some sense, these increase the boundary of the knowable. The PIU posits that there is a limit to such knowability. I agree, only this is postulated, not proven.

Rene Descartes famously declared his own reality by acknowledging that if he found himself to be thinking, then he must surely exist, whatever the form of existence might be (https://en.wikipedia.org/wiki/Cogito,_ergo_sum). As a technical philosophical matter, the "I"

that thinks is vague, and the nature of the thought is ambiguous, because the hidden, subjective nature of thought is not available for direct, objective, scientific scrutiny. However, while the subject and action of Descartes' proposition, as a first principle of philosophy, are nebulous, the action of thinking does point to an existence, whatever its true nature. This note starts with Descartes' line of reasoning that we may by rational analysis contemplate a reality in which we exist, but places a severe limitation on how well we can learn how this reality originated. In fact, the argument is made that we can truly know nothing definite about the nature of Creation from reasoning.

We start our analysis from a wonder about what the reality of existence is truly about by wondering about how any reality may exist. There are two main lines of philosophical thought about the origin of our world, the world that we perceive and think about: Creation by God, and random materialism, as held by atheists and agnostics.

The atheist position (https://en.wikipedia.org/wiki/Atheism) is that there exists no supernatural God or deities, so that the world is an unguided machine that randomly acts; this perspective is supported by Heisenberg's Uncertainty Principle in which quantum mechanics recognizes that at the sub atomic level, precise measurement of fundamental qualities is impossible, so what happens has a random basis. The origin of the material world is of no special concern. The world may have always existed, or it may have originated in some Big Bang from an indescribable singularity, and it may even pass thru cycles of birth, death and rebirth. No matter how it came to be, it just is.

The religious perspective is that a supernatural being, God, created the world. The philosophical issue about that concerns the origin of God, as Creator. As a logical matter, either God always existed (a strange thought for mortals who experience causation in which a given existence changes by an act to a new status of existence), or God somehow came into being from nothingness, a stranger yet explanation.

A scientific perspective is well represented by physicist Heinz Pagels in his excellent book, Perfect Symmetry. In his chapter, Before Inflation: the Origin of the Universe (pp 353-368), he asserts:

> …Certainly the very existence of the entire universe and the Big Bang is evidence that there was some kind of origin. There are other features of our universe that may provide information about its origin, though we may not at first think of them as clues. For example, the inflationary picture requires that before inflation the universe was immensely hot and very dense—requirements that should logically follow from a theory of the very origin. Yet another example of a clue is the most dramatic feature of the universe to have survived the inflation: the three-plus-one dimensionality of space-time.

> A further feature of the preinflationary universe is that it exhibits a high degree of symmetry and this also should be explained by any theory of the origin.
>
> As we embark on the attempt to understand the very origin of the universe, it is worth reminding ourselves of "Einstein's postulational method." This method consists of intuitively guessing a physical postulate (which cannot be directly tested), then logically deducing its consequences and subsequently testing these results against experience. If the tests fail, the assumed postulate must also then be rejected." Pages 354-355.

This paper argues that such a reasonably formed program for empirical research about a hypothesized origin would be futile, that discovery of an origin, if there were an objectively conceivable origin, is precisely excluded by applying the recommended "postulation method."

The meaning for any question about the nature of world Creation or even any defined localized system supposes an external observer frame of reference for its answer

The argument made by this note is that whether one accepts God as the Creator of the world, or holds that the world is a non-rational machine, we cannot possibly reason about the true nature of existence—we cannot possibly know the truth of how our world exists, regardless of whether it is static (always having existed) or transitional, from an inexplicable origin, *because our ordinary perception and knowledge can only be acquired within this world that we inhabit, but the question about its origin has an external basis for its answer. To answer the question about Creation, we would have to be outside* of it to perceive "where *it came from" or "how it was made."* ***Thus, the question about the nature of the world's origin is not in principle one that may be addressed, much less answered.*** By analogy, fishes born and living in a fish tank cannot possibly know anything about the origin of the glass container or the collection of the food and water placed into their tank. Being always immersed in our material world, we likewise are incapable of observing the nature of its construction as might be seen from a perspective external to its existence. Alternative to a finite "fish bowl" model of the universe, if we posit that the universe was always infinite, then no observer could be placed external to it, so once again no observation of an origin would be possible.

In an ingenious experiment on quantum superposition which demonstrated that separate observers may make differing, contrary, observations of a given superposition state (being collapsed or not), (Experimental rejection of observer-independence in the quantum world, Massimiliano Proietti, Alexander Pickston, Francesco Graffitti, Peter Barrow, Dmytro Kundys, Cyril Branciard, Martin Ringbauer, Alessandro Fedrizzi, Feb 13, 2019, https://arxiv.org/pdf/1902.05080.pdf), the authors posed a possible solution as follows: "*one way to accommodate our result is by proclaiming that "facts of the world" can only be*

established by a privileged observer—e.g., one that would have access to the "global wave function" in the many worlds interpretation..." Thus, their possible solution for avoiding observational inconsistency within a system (here a mini-world system of separated labs examining superposition states) was to seek a "privileged observer" located external to the mini-system of separate laboratories.

We may generalize the concept that requires elevation of observers to a frame external to the system or world to be observed as a hard rule for achieving self-consistent and valid system knowledge. This hard rule of unknowability for observers limited to observations being made only within the system to be known is termed **The Principle of Interior Unknowability** (**PIU**).

Consider that we cannot humanly, reasonably, imagine how something could originate from nothing; even if we hypothesize a world consisting of equal amounts of opposite energies, i.e., positive and negative energies summing to zero, there yet needs to be a catalyst or creator, and that creative power would be something. So, we cannot in principle fathom how God or any mechanical universe could come into existence from nothing. This line of reasoning is dead in its formation.

Let's alternatively consider that God or the mechanical universe always existed, given that the form of God or the material universe may not be static. Well, how can anything have "always" existed, granted the form of the existence may not be static. In principle, we cannot imagine a situation in which the world always was there, always existed. We can state the proposition that the world always existed, but it defies human understanding.

Science and mathematics are not helping either, as both have admitted to irreducible uncertainties of knowledge, as well as the impossibility in principle of predicting the future based on past knowledge. As alluded to above, quantum mechanics had demonstrated in the lab a difficulty in pinning down with precision the measurement of momentum and position for the electron, because as the measurement apparatus was adjusted to measure one variable better, measurement of the other lost precision; Heisenberg ultimately realized that the phenomenon of uncertainty was not merely a fault of lab equipment, but was inherent in the nature of subatomic existence. The Schrodinger wave equation representation of quantum phenomena (Heisenberg had initially used a form of matrix algebra that he invented) formalized the uncertainty as intrinsic to quantum phenomena. In the study of cosmology, consensus is that approximately 95% of the matter and energy in our universe is currently not directly observable, thus termed "dark," so that we observe less than 5% of existence.

The eminent cosmologist, prof Joseph Silk, while recognizing that we cannot even imagine what data might exist to be used to explain creation before the singularity formed and the Big Bang

occurred (with the Big Bang being the best theory available now for understanding the nature of the universe), he yet maintains hope that the development of superstring theory, quantum gravity, or some future theory may lead to knowledge about how the world was created:

> Such developments [referring to superstring and quantum gravity theories] provided for substantial grounds for hope that we may eventually be able to understand the era of creation near the singularity, where similar physical conditions are attained. For now, however, we must reluctantly admit that the big bang theory is not complete: it lacks a beginning [referring to earlier discussion that we do not know how the singularity was formed, and why it erupted in the Big Bang], and we cannot confidently predict its ending. If a better theory of the universe is forthcoming, there seems little doubt that it will incorporate the big bang theory as an appropriate description of the observable universe. *Perhaps a new theory will encompass the big bang in the same way that Einstein's theory of gravitation encompassed and generalized Newtonian gravitation. Although the ultimate theory of the universe is still beyond our vision, we can feel fairly confident that we have at least seen its form emerging***.**" [emphasis added] page 411.

Unfortunately, if the PIU were true, we cannot ever acquire any such "vision.

In mathematics, Kurt Godel (https://en.wikipedia.org/wiki/Kurt_Gödel, or see Godel's Proof, Nagel, Ernest, and Newman, James) proved that for non-trivial logico-mathematical systems (such as arithmetic), there may be theorems that cannot be proven. Within seemingly internally self-consistent coding systems (which encompass today's massive computer programs), the Turing halting problem applies (the problem being equivalent to Godel's first Incompleteness Theorem), so there may be lurking inconsistencies that may only be found by trial and error runs. Godel's first theorem of incompleteness effectively implemented Bertrand Russell's realization that the historic Liar's paradox is based on self-reference to create the paradox, thus enabling Godel (and Alfred Tarski) to define an Undefineability Theorem that bars the use of self referencing in a system to analyze its validity. The problem of self-referencing recognized by Godel may be an analogue to the impossibility of completely understanding the nature of the material world by inspecting it from within itself, much less discovering by observation how our material world was created. The PIU postulates that observations made from within the material world cannot in principle ever discover how the world was created with any certainty.

Any attempt to understand the nature of consciousness also faces the problem of a lack of any external perceptual frame of reference

The impossibility of fully understanding the nature of the consciousness we have, whether or not created by God, may likewise be limited by our immersion in a field of consciousness. We may

know something about it by experiencing it, but we are in principle unable to stand back and observe how it functions in the way that the science of physics requires for study of objects and phenomena. Just like the fishes in a fish tank, we are unable to objectively study consciousness because we are immersed within it. Thus, the Principle of Interior Unknowability may apply to objective, disciplined attempts to understand the nature of consciousness.

Consciousness theory development faces a second insurmountable hurdle imposed by any requirement to apply Popper's principle of falsifiability (https://en.wikipedia.org/wiki/Karl_Popper); a proper scientific hypothesis must be capable of an empirical demonstration or observation of its falsity. However, as was explained in Article 3. about Universal Consciousness, based on the numerous reports from the OBE, everything was found to exhibit consciousness. These reports are consistent with theorizing that everything made by God is made from God (after all, God could not go shopping anywhere to acquire new material such as at any cosmic Home Depot or Lowes), and God is essentially consciousness. Consciousness would not only imbue the entities experienced in the 2nd Domain, but also everything in the 3rd Domain. Yes, even dumb rocks and slippery droplets of water would be imbued with consciousness, and, as explained by the phenomenon of quantum entanglement, the material in the 3rd Domain is functionally connected to the consciousness field of the 2nd Domain. Thus, all materiality is imbued with consciousness to include photons, electrons, atoms, molecules, biological cells and their constituent parts, assemblages of cells in tissues and organs, symbiotic organisms, and holobionts (a fascinating article on the human gut microbiome for health and disease is at: Humans as holobionts: implications for prevention and therapy Maarten van de Gucht, Hervé M. Blottière, and Joël Doré .*Microbiome*2018**6**:81. https://microbiomejournal.biomedcentral.com/articles/10.1186/s40168-018-0466-8). All of these constituent elements of any complex organism could aggregate their individual consciousness, with perhaps the functioning of the organism benefiting from their shared consciousness. And there is the rub with falsifiability - there would be no way to create anything without consciousness to test for any differences that could falsify this hypothesis.

Likewise, it is hypothesized from the OBE reports of a unified consciousness departing its connection with the body during trauma, that the soul is an entity apart from the aggregated consciousness of the body's cells and organs. Consider that there are many OBE reports of the body behaving (moving after severe trauma) as if it still had a form of life after the soul detached during the OBE. However, such theorizing must be done despite its failure to adhere to the falsifiability principle.

Conclusion

We have the predicament that both of the two available explanations for the reality of existence are in principle not understandable to the human mind, whatever the nature of "mind" or its consciousness may be. To restate this dilemma, we cannot rationally understand or explain how either explanation for existence, i.e., it always existed or, instead, it sprang from nothingness (e.g., God the Creator always existed, or a non-rational mechanistic universe always existed, or either sprang from nothingness), can be true.

Given that we cannot view the creation of existence from any externally objective reference frame, so that the Principle of Internal Unknowability applies, there is nothing certain about existence that we can conclude by reasoning about what we humanly perceive or what we scientifically observe and measure from the interior of creation. We are reduced to acknowledging that what we experience, perceive, and believe we know about the material world may only be the mind's "imaginary" construction of an apparent reality.

As Human, we are at a loss to be able to understand the nature of the reality we experience with any firm confidence. However, there is much truly valuable to ordinary life and to advancing the sciences that we can accomplish. Neil Siegel expressed well such optimism while commenting on the PIU:

> I would stress that the unknowability postulated by the PIU is only at the boundaries of existence; I strongly believe that we can use reasoning to analyze and guide most of life's situations, and can do so to great advantage. That is, I do not interpret the PIU as a pessimistic statement at all, but just as one that establishes a zone of reasoning, within which we can realize our full potential as humans, through the use of reasoning. Humans are the animals that think, rather than depend primarily upon instinct.

In religion, there is a reliance on faith. In science, there is the hope for certainty about empirical knowledge, while recognizing that future research may revise how we model and understand the world, as so well demonstrated by Einstein's advance in modeling gravity through General Relativity over Newton's modeling. Perhaps the one remaining source of knowledge we may have that skirts the uncertainties natural to science and religion comes from the Near Death Experience in which God is said directly to share all of knowledge about existence.

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