

Article

Ultimate Reality: The Non-Physical Source of Consciousness

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Abstract

A straightforward logical argument is made supporting the concept that ultimate reality is not only the source of everything in the world; not only the source of the world itself; but also the source of the consciousness that perceives the world. This argument is correlated with recent developments in theoretical physics and cosmology.

Key Words: ultimate reality, non-physical, source, consciousness.

In a previous article ¹, a scientific argument was made regarding the non-physical nature of ultimate reality as the source of consciousness. This article extends the argument in a natural way, but without reliance on any specific aspects of physics. At the end of the article these logical conclusions are correlated with findings of modern physics, which have been well documented in the recent book by Amanda Geffer ².

The question is about the nature of ultimate reality. We appear to live in the world, but this created world is not the ultimate nature of our reality. This created world is an emergent reality that emerges from ultimate reality. We understand ultimate reality as the source of everything in the world. What is not quite as obvious to us is that ultimate reality is the source of the world itself. Even less obvious to us is that ultimate reality is the source of the consciousness that perceives everything in the world. Ultimate reality is the source of everything we call "us", including our own consciousness.

Ultimate reality is not only the source of everything in the world; ultimate reality is the source of the world. When we speak about the world, we also have to speak about the observer of the world. Modern physics tells us that it makes no sense of speak about a world unless we also speak about the observer of that world.

There are two related questions. What is the nature of ultimate reality and how does the world emerge from ultimate reality? The remarkable thing is modern physics gives us some answers, and these answers inherently involve a role for the observer. In relativity theory, the observer is understood as a frame of reference, or the central point of view of a reference frame. Remarkably, modern physics tells us the emergence of the world depends on the reference frame, and thus is observer-dependent. Even more remarkable, these scientific answers resonate deeply with the answers given by many of the world's most revered religions.

The first question about the nature of ultimate reality has an answer that we can deduce from logic and reason alone. When we look at the world, we see distinct things. The very distinctness of things implies a boundary that separates each thing from all other things.

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Only this boundary defined in space and time allows us to distinguish anything from all other distinct things. Modern cosmology has shown that even the observable world has a distinct boundary, beyond which we cannot see anything. This cosmic boundary in space and time is called a cosmic horizon. The remarkable nature of the cosmic horizon is every observer has its own horizon, which is to say the cosmic horizon is observer-dependent.

Every observer is present at the central point of view, and the cosmic horizon is a bounding surface of space, like a spherical surface, that surrounds the observer at the central point of view. This discovery of modern cosmology only confirms our observations that all distinct things are defined by a boundary, including the world itself.

The strange aspect of this discovery is that every observer in some sense has its own world, delineated by its own boundary in space and time. We can only speak of a consensual reality shared by multiple observers when their individual world-delineating boundaries overlap with each other and in some sense share information.

This is where logic comes into play to help us understand the nature of ultimate reality. Every distinct thing in the world is delineated by a boundary in space and time, including the world itself. Ultimate reality is the source of everything in the world, including the world itself. Since ultimate reality is the source of everything, and everything is defined by a boundary, ultimate reality itself cannot be defined by a boundary. Ultimate reality is unbounded and unlimited, which is to say that it is infinite.

The very fact that everything is defined by a boundary implies that everything is differentiated. The boundary in space and time is what defines the distinct thing, and in the process differentiates that distinct thing from all other distinct things.

The construction of the boundary is the differentiation process. All distinct things are constructed, and this construction process is a differentiation process. Even the world itself is created through a differentiation process involving the construction of a boundary that we call a cosmic horizon. Logic tells us that if everything in the world is constructed through a differentiation process; if the world itself is created through a differentiation process; then the source of everything in the world; the source of the world itself; must be undifferentiated. Since ultimate reality is the source of everything including the world itself, and since everything including the world is differentiated, logic tells us that ultimate reality must be undifferentiated. To say that ultimate reality is undifferentiated in some sense is to say that it is "one".

We seem to have a paradox. Ultimate reality is unbounded and infinite, but it is also undifferentiated and "one". The paradox only gets worse. Since ultimate reality is the source of everything including the world itself, logic tells us that ultimate reality cannot be some distinct thing that we can delineate and identify in the world. The source of all distinct things cannot itself be a distinct limited thing. To say that ultimate reality is not some distinct limited thing is to say that it is "no-thing".

The unbounded, unlimited, undifferentiated nature of ultimate reality as the source of all distinct things, including the world itself, tells us that ultimate reality is infinite, "one" and "no-thing".

Ultimate reality can only be described as the infinite, unbounded, undifferentiated nothingness that is the source of all distinct things.

The distinct things, including the world itself, are always limited and defined by a boundary in space and time. The distinct things, including the world itself, are all finite, bounded, and differentiated. Ultimate reality as the source of all the distinct things is not definable in this way, but is only describable in negative terms; in terms of what it is not; as unlimited, as unbounded, as undifferentiated, and as nothingness.

There is one last indefinable aspect of ultimate reality that is deducible from logic and reason alone. Every distinct thing in the world is perceivable, but the nature of the perception of things is a mystery that science can never solve. We have no credible scientific explanation for our ability to perceive the perceivable things. There is no scientific theory that explains our ability to perceive things.

It is logically impossible that the source of our ability to perceive things can somehow emerge from the perceivable things themselves. The irrefutable expression of this logical impossibility are the Gödel incompleteness theorems. If the perceivable things are described by a consistent set of computational rules, as is the case in all scientific theories, then the ability to know about the consistency of the rules cannot itself emerge from the rules. The emergence of the ability to know about the consistency of the rules from the rules would imply a paradox of self-reference, and that paradox would make the rules logically inconsistent. Logical consistency absolutely requires the ability to know about the consistency of the rules cannot itself emerge from the computational rules.

The ability to know about the consistency of the computational rules is a mystery that any science based on consistent computational rules can never explain. In exactly the same way, the ability to perceive the perceivable things cannot itself emerge from the perceivable things. What is the source of this ability to perceive the perceivable things? The only possible answer is the source of the ability to perceive the perceivable things is the very same source that is the source of the perceivable things. Ultimate reality is the source of all the distinct perceivable things, and it is also the source of the ability to perceive the perceivable things.

The ability to perceive the distinct perceivable things is what we mean by the word "consciousness". This tells us that ultimate reality is not only the source of all the distinct perceivable things, but it is also the source of the consciousness that perceives the perceivable things. Ultimate reality is the infinite, unbounded, undifferentiated nothingness that is not only the source of all distinct things; it is also the source of the consciousness that perceives all the perceivable things.

Modern cosmology tells us that like all the perceivable things in the world, the world itself is a perceivable thing defined and limited by the boundary of a cosmic horizon. The cosmic horizon is a bounding surface of space surrounding the observer at the central point of view. Modern physics tells us the cosmic horizon acts as a holographic screen that encodes all the fundamental quantized bits of information that define everything observable in the observer's world.

In the language of quantum theory, the holographic screen constructs a Hilbert space of observable values for all possible observations the observer can make in its world. This construction of a Hilbert space on a holographic screen is possible in a non-commutative geometry when position coordinates on the bounding surface are represented by non-commuting variables. In this scenario, each fundamental pixel defined on the screen encodes a fundamental quantized bit of information.

The holographic principle tells us that all perceivable things are composed of bits of information, and the perception of anything is like the projection of a form of information from the screen to the central point of view of the observer. These forms of information are always delineated by a boundary, and in the sense of physics are conceptualized as bound states of information. Since the delineating boundary is constructed in space and time, these forms of information appear to occupy space even as they appear to become animated over the course of time.

The observer's holographic screen is the boundary in space and time that defines its world; a world that by its very nature is finite, bounded and differentiated. The observer itself can only be understood as the consciousness present at the central point of view of that world.

Ultimate reality is the source of everything in the observer's world. Modern physics tells us the observer's world is constructed on the holographic screen that surrounds the observer at the central point of view. That is where all the bits of information are encoded. The observer's holographic screen is the boundary that delineates and defines the observer's world.

The observer's finite, bounded, differentiated world can only become constructed when a boundary arises in the midst of the infinite, unbounded, undifferentiated nothingness of ultimate reality. Even more remarkable than this conclusion is that ultimate reality is also the source of the observer's consciousness. The observer's consciousness is present at the central point of view of its world, but is only present when its world is differentiated from the undifferentiated nothingness of ultimate reality. The differentiation process is the construction of the boundary. Not only is the observer's world differentiated from ultimate reality; the observer's consciousness is also differentiated from ultimate reality.

The construction of this boundary and the encoding of information on the boundary requires the expenditure of energy, which is equivalent to the exertion of a force. In relativity theory, we understand the nature of a force as an accelerated frame of reference. The boundary is an event horizon that only arises in an accelerated frame of reference, which requires the expenditure of energy. The space and time that characterizes the observer's world, along with all the information that defines everything in the observer's world, can only arise with the expenditure of energy that constructs the boundary.

Where does this energy come from? Like everything else in the observer's world, ultimate reality is the source of this energy. We even have a name for this primordial energy, which is called dark energy. The construction of the cosmic horizon is due entirely to the force of dark energy. Even the flow of time is a consequence of this expenditure of energy. Without this expenditure of energy, there is no horizon, there is no bounded space, and there is no flow of time. Without this expenditure of energy, there is no construction of a boundary, there is no differentiation of a

world or the consciousness that perceives that world, and there is no time-bound world. Without the construction of the boundary, the unbounded, undifferentiated primordial nothingness is timeless and unchanging.

An odd aspect of relativity theory is the total energy of the world can add up to zero, since the negative potential energy of gravitational attraction can exactly cancel out all positive forms of energy, like dark energy, mass energy and kinetic energy. Since everything in that world is composed of energy, and all of that energy can add up to zero, everything can ultimately be nothing. Observations indicate the total energy of the universe is exactly zero, and so everything in the world ultimately adds up to nothing.

Ultimate reality is the infinite, unbounded, undifferentiated, unchanging nothingness that is not only the source of the observer's world and the source of everything in that world, but it is also the source of the observer's consciousness that perceives all the distinct perceivable things in its world, even when that perceivable thing is the world itself.

The observer's world only appears and the observer is only present for that world when energy is expended and a boundary arises in the midst of the primordial nothingness. When energy is no longer expended, the boundary is no longer constructed, the observer's world disappears, and the observer is no longer present. When energy is no longer expended, when space is no longer bounded and time no longer flows, only the observer's underlying reality remains. That underlying reality is the source of the observer's consciousness. This underlying reality, this "ground of being", is the infinite, unbounded, undifferentiated, unchanging, primordial nothingness that is called ultimate reality.

Ultimate reality can be described as infinite, "one-ness" and "no-thing-ness"; but what it cannot be described as is "two-ness". Only the emergent reality of an observer and its world can be described as "two-ness". This duality is a direct consequence of the fact that an observer's world contains information about discrete observable things, and these bits of information are encoded in a binary code, like numerical variables that take on the discrete values 1 or 0, or spin variables that take on the discrete values "up" or "down".

Duality is a direct consequence of the way bits of information are encoded on a bounding surface of space. Non-commutative geometry gives a natural explanation for duality in terms of non-commuting variables defined on the bounding surface. Only a boundary arising in the midst of the primordial nothingness differentiates an observer and its world from ultimate reality. In its ultimate, unbounded, undifferentiated, primordial state, reality is only describable as non-dual.

References

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