MAPPING THE WHOLE IN EVERYONE AN ESSAY ON: NON-EXISTENCE AS THE ENGINE AND AXIS OF EXISTENCE

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OVERVIEW: We show how the collective intelligence of humanity can be accessed via a commonly sensed consciousness: 1) the physics and cosmology which support this; 2) our ability to demonstrate this scientifically; and 3) how this can be achieved conceptually and practically, via education, films, and social media.¹

ABSTRACT: It is argued that an effective way to view consciousness is as a "superposition" of existence and nonexistence, producing an indivisible experience of "nonlocal being", plus who and what we perceive ourselves to be (local observers). This relationship between an observer-based localization and the nonlocal whole is examined. Using ideas from general relativity and quantum mechanics (QM), we suggest how a space-time continuum (GR)—including QM probability and uncertainty, as properties of consciousness—may have arisen as dynamic complementarities. Opportunities to contemplate the origins of existence are investigated, and corresponding experimental studies are suggested.

KEYWORDS: non-existence; existence; unity; point-centered-process; co-creation.

We recognize that energy and momentum are defined in relationship to their complementary distributions in space-time. Here, mathematics, physical fields and forces are valued as information-based by products of a nonlocal superfluid system. Nonexistence, as undifferentiated consciousness, is seen as the only constant in *existence*. As such, existence and nonexistence might function as an undivided whole, sustaining virtual particle production and annihilation—within a field of infinite possibilities and

potentials, united by point-centered-processes. If existence is virtual, this would allow for a unity we can experience—as a species.

It is noted: How well we pay attention and what we pay attention to focuses the activation of charge polarities in our cell proteins, orchestrating our capacity for physical movement and psychological interpretation. Yet by overly "identifying" with the limits of individualized experience, we become falsely constrained, which isolates and even traumatizes us. The life process is seen as the evolution of our ability to insightfully observe together—as a species—to achieve and sustain a sense of balance, receptivity, and co-creative capacity with the rest of nature.

"For she is herself and not herself, having gained eternal life through the blessing of death." – Lactantius (from the myth of the Phoenix 300AD)

INTRODUCTION

At the heart of any scientific inquiry asking "how" is the philosophical enquiry "why." The scientific community has had a preference to ask *how*, for the simple reason that the corresponding answer is typically an observable physical mechanism or process. Nonetheless, *why* it occurs also deserves attention, as this paper does with clear intent. By asking *why* our perception of the universe is the way it seems to be, specific instances of physical phenomena are shown to be in support of this paper's implications.

In a near-death experience at the age of four, Sperry existed as formless awareness—informed by absolute stillness and silence. It has been essential for him to learn how to tune the human body, heart, and mind to this awareness; or, by degrees, feel fragmented by *his own*, and *our* unconsciousness—as follows.

Individual and collective attention can be exclusively organized by ideas and activities. Yet, whenever attention is allowed to become overly identified with these fragments of a greater whole, a mind-made personality tries to take control of these pieces of experience, to create a "peace" that is missing. Yet this trying is futile and goes on endlessly, as the mind promises to make life behave the way it imagines it should. When filled only with the knowledge of these thoughts and things, our minds cannot begin to know the actual integrity of awareness.

By being aware of awareness itself (e.g. conscious awareness), our best qualities can be amplified far beyond what most of us have ever experienced. As cells in the body of humanity, our creative freedom, love, and understanding rely on how we pay attention. We can notice that what we pay attention to determines who and what we experience ourselves to be, suffering attraction and avoidance as pleasure and pain when we do not perceive the indivisible nature of existence.

By utilizing our innate capacity to be consciously aware, our perceptions become more organized, allowing for greater understanding, motivation, and intelligence; to serve as the perceptual faculties of a universal body, heart, and mind; to feel "one with all," wherein mutual understanding is effortless. Experiencers say: it is thrilling to feel oneself and another—as co-creative—within the whole of life.

Conscious awareness can be known—as who and what we are: changeless and the cause of all change. We realize we have been seeking what may be our immortal nature in what is impermanent. Unconditional-love can be felt to flow within us—as one of the many forms of "pure conscious intelligence".



"Selflessness is not a case of something that existed in the past becoming nonexistent. Rather, this sort of 'self' is something that never did exist. What is needed is to identify as nonexistent that which always was nonexistent." – H.H. Dalai Lama

"SELF" DISCOVERY

Our key to understanding how nonexistence could incorporate all the countless forms we know and love begins with recognizing the difference between geometric structures defined by the arrangement of points in space and imagining the unimaginable, a Void with no geometry, no points, no space, and no time. It is exciting to intuitively sense how one can flow into the other and back again. Surely, by itself alone, "nothing" would continue to be nothing at all. Yet taking into account that this universe may well be a scientific validation that something can come from nothing, a case is made for furthering future research.

When "dead," I (Sperry) had no body, heart, or mind. There were no images or thoughts and no objects. Yet, this "I" still "existed" as awareness itself. There was no "me," no mind-identified form to confuse who and what I had been and would always be. This "I" has had thousands of such epiphanies since then.²⁻³



"When you are both alive and dead, how superb the smallest pleasure." - Bunan

Even though the formless awareness Sperry was then is still who he is now, it has not always been easy for him to embody or comprehend the unconditional love that appears to arise as if from nowhere. When unaligned, his mind wants to know: "What is this love that loves? This love that makes us one: I in you—you in me?" Countless

others may have asked this same question, as there are now thousands of children and millions of adults who have reported having had near death experiences (NDEs). Some researchers have asked if humanity might be adapting—to better manage the limitations of social (self-centric) fragmentation.⁴

Having spent decades of time and attention contemplating how wholly interdependent existence and nonexistence appear to be, it has been more than a little frightening to face the fact that "we" have been here for thousands of generations, yet so few seem to have experienced or understood where we have come from, where we are now, or how we can get to where are we going.

QUESTIONS

Perhaps nothing can flow into being something and then return to being nothing at all without changing "its" essential nature? As an analogy, waterfalls are examples of gravity attracting a liquid to fall toward the center of the earth, while the heat of the sun causes the water to evaporate, forming clouds that rain back down, making waterfalls possible. This closely resembles Douglas Hofstadter's concept of a "strange loop"—a path taken through a hierarchical system that eventually puts us back in the place where we started. Hofstadter argues that strange loops are a key tool in understanding how consciousness operates.

What if an unchanging absence (or nothingness) causes the evolution of "something" to be impermanent? How can there be an end or a beginning? Is there an edge to our expanding universe? Where did space-time come from? What do waves of light wave in? Why do we exist? Who are we? What am I?³

In 1950, a physicist by the name of David Bohm was working with Einstein at Princeton. Since shorter wavelengths were thought to have more energy, he calculated the amount that would be theoretically present in a space a little less than the tip of your smallest finger, for only one size of wavelength, each being approximately 1.6 x 10⁻³⁵ meters long. (Note: We are as small compared to the universe as these wavelengths are "small" to us.) Therein, he found enough energy to remake the entire visible universe nearly three times over—down to atomic dimensions (10⁻¹⁷ meters). A consequence of this train of thought is that all energy and information in "our" universe may actually reside within each of us.

Though scientists had barely begun to probe the atom, his math indicated there might be much more. Others since then, including another physicist at Princeton, John Archibald Wheeler, agreed. This suggests *our visible universe* is only the very tiniest fraction of "all there is." I (Sperry) was stunned. How could shorter wavelengths convey vast quantities of matter and energy—with untold qualities?

I reasoned, *purely hypothetically*: If a wave of infinite brevity possesses infinite energy and specifies as close to an exact location as is possible in our space-time continuum, can its closest neighbor (*a precise point*: being wholly without wavelength or frequency) possess no energy or location? If so, a location as specified by quantum mechanics and a point with no energy (or even location in space-time) apparently co-exist. If the first is a functional cog in the machinery of existence—maybe the latter is too. I asked, if this absence can serve as the axis of a turning wheel, could it also be the (nonlocal) rotational axis for this universe?

I wondered, if a point can "exist" without a fixed location and require no energy, given there are an infinite number of these precise point-centered locations in this universe, this might help me understand "my" self/Self, as a *form* of absence. Could I be an ever-present Void—with no beginning or end? The question was so intriguing, I set out to discover if physicists may have overlooked the Void.



Perhaps being "nobody" has been simply too scary or incomprehensible for most people to consider. And I could certainly understand why many would believe a nonexistent Void could not possibly "exist." And if it did, certainly not have any practical importance. So I asked, is there some socially acceptable, commonly sensed intelligence about *this*. Would my closest friends or family understand? No! No one seemed to know what I was talking about. Plus there seemed to be a lack of interest to explore or even try to comprehend who or what we are? These experiences which I felt to be intimately engaging were to become so perplexing.

I found widely accepted theories designed specifically to eliminate the existence of points. In fact, scientists who believe that the laws of physics are unable to include them, refuse to imagine nonexistence "forming" into a point-centered location—as a context from which our universe could (re)originate. If space-time emerged from a point-centered location in a big bang—as is generally thought—could a point-centered-process undergird all phenomena? And, if a nonexistent Void could have transformed in space over time to passively serve a pivotal, re-creative process, an inflationary period might have occurred—out of necessity. Wherein the incremental expansion of a Void would have ensured that each new point increased the volume of space, connecting all points throughout time?

Like a donut defined by its relationship to an emptiness at its center, the number of points could have multiplied infinitely, toroidally "inflating" space-time (like a balloon) spherically—in all directions simultaneously—into an unlimited number of mathematically correlated point locations (with no internal resistance). Yet, this inflation may well have encountered resistance, as the curvature of space-time in general relativity (GR) must be complemented by the presence of inertial mass/energy. Could quantum gravity unite void-based observation, GR and QM?

"[I]n quantum gravity, universes can spontaneously appear from nothing and need not be empty but can have matter and radiation in them as long as the total energy including the negative energy associated with gravity, is zero. In order for the closed universes...to last for longer than infinitesimal times, something like inflation is necessary." —Stephen Hawking, Wave Function of the Universe

Even though "space-time" had never existed, what we refer to as space-time now may well have exerted specific opposing forces to being created out of nothing. Potential energy could have taken the form of space-time gravitating in a point-centered way. And kinetic energy would be the radiant inflation of these points—reabsorbed toroidally—throughout the interiors of other identical process-centered locations, as charge polarities held together by electro-magnetic forces.

THE ENGINE OF RECREATION

Could spacetime's resistance to the deformation of a spaceless/timeless Void "cause" an unlimited number of mathematically distinct points to act as correlated, process-centered locations (e.g. quantum pixels, displaying information generated by one underlying "program"),⁷⁻⁸ to form micro-vortices which flawlessly orchestrate self-similar, fractal phenomena about an ever growing number of local dimensionless axes? Whether a curved, space-time continuum has the capacity to inertially resist the emergence of an unlimited number of identical, geometrically related processing

points could someday be tested in particle accelerators, such as the large hadron collider (LHC), built in collaboration with over 10,000 scientists and engineers from over 100 countries, involving many universities and laboratories. The detailed properties and behaviors of a group of particles could conceivably be quantified by their overall resistance to spontaneously forming something out of nothing, in collisions mapped over a long-term thorough series of complementary studies (such as those dedicated to finding the Higgs Boson). Overall, could a spectrum of incomparably unique forms, forces, and fields be *likely* to emerge and regenerate an evolving whole, wherein everything is always "now"?

"Existing, yet not existing" seems tantalizingly similar to the term "virtual". In general, <u>virtuality</u> is having the attributes of something without sharing its real or imagined physical form. In <u>physics</u>, for example, a virtual particle exhibits most of the characteristics of an ordinary particle but only exists for a limited time. The longer it "exists," the closer its characteristics come to that of ordinary particles.¹⁰

Assuming our universe is an experimental verification that something can come from "nothing," could *virtual* Planck scale wavelength(s) "deform" a Void to first form a *process-centered* point location? Noting the sensitivity of any complex system to its initial conditions, the influential nature of these earliest virtual interactions may have *passively-acted* to determine the emergence of gravitation, electro-magnetism, and nuclear forces. The spaceless/timeless reference frame of the speed of light may be one example of how that which is dimensionless can coordinate, evolve and passively-create by virtue of the contrast between the part and the whole. Perhaps, the dimensionless nature of the points—which comprise the whole—insures "they" are continually "refreshed" each instant passing?

The idea of an etheric medium for electromagnetic radiation was discarded when the theory of special relativity seemed to eliminate the need. Now, having found enormous energy densities at ever-shorter wavelengths, is it possible that all process-centered point locations in this universe—taken as a whole—might constitute this long-sought etheric medium? Given that the frame of reference for the speed of light is accepted as dimensionless—which has been experimentally tested and mapped mathematically—could everything be made of identical virtual-points, wherein consciousness and space-time were one and the same?

"[W]e all exist in what can be called 'the Mind of God,' and that our individual minds are parts of God's Mind. They are not as powerful as God's Mind, for they are only parts thereof; yet, they are directly connected to the greatest source of knowledge and power that exists. This connection of our minds to the Mind of God, which is like the connection of parts to a whole, is...the most crucial and essential part of being human." —C.N. Langan

Remarkably, localizing the nonlocal whole without any required force or location, is a characteristic of consciousness. The whole could be gravitating, by accelerating toward each point, and each point could be kinetically "entangling" its (in)formation—instantaneously—within every other point. As in the many/one structure of a hologram—wherein all points are encoded—perhaps a point-centered primordial consciousness "acts" non-locally from within every point, making it the most recreative force in nature. Conscious, or not, our awareness appears to grant the ability to reorganize and orchestrate material life.

If this is true, we are all connecting nonexistence with existence *right now*, this very moment. For instance, in the quantum Zeno effect, the sustained observation of a quantum system causes an infinite range of possibilities to be narrowed down to a specific few.¹² No *entirely physical* theory yet explains why or how an observer causes this to happen.



THE STILLNESS AND SILENCE BEYOND "SELF/SELF"

The "I am" is sensitive to the presence of awareness as a mirror-like, reference frame. Being aware "as it," I am better able to choose wisely what it is I am doing, with it. By sharing co-consciously in the groups I (Sperry) have been facilitating for thirty years, I have been able to witness the effect on people's lives. ¹³ I can confidently say:

consciously shared awareness can be productively and beneficially taught, transforming friendships, families, cultures, and humanity. 44-15

Experientially, mystics claim that the depth of receptive awareness accessible through the surrender of "self/Self" identity perceptually reflects the indivisibility of "all that is." That which is not a self/Self is experienced as every thing, every one and no one. As its witness, an imageless "awakeness" is sensed to be the only constant in all of consciousness, creating, uniting, regenerating, and transforming "all that is." As such, this awakeness serves best as a mirror, not as a self/Self.

The unity of existence and nonexistence may be generating inspiring insights to emerge and flow like waves on a vast ocean, allowing anyone to recognize the impermanent play of "all that is." To integrate our separate thoughts, sensations, and emotions, we are challenged to discover and design daily activities that utilize all of the features of our existence, without being attached in any way to any "Thing" or any "One", myself and yourself included. As such, embracing our unity proves unavoidable—requiring a radical change in behavior. 15-16

Consequently, there is a point of karmic "balance." A self-isolating ego/identity can focus continuously on thoughts and things, in fear and doubt of the lasting value of anything psychological or material. Yet, co-realizing the liberating nature of awareness itself wholly resolves this dilemma.¹³

THE NECESSITY FROM THE STANDPOINT OF ANTHROPOLOGY AND SOCIAL PSYCHOLOGY

It could be said that consciousness "connects" perceptions with activities. Over the course of evolution, our sense of connectedness may have enabled and supported the development of both individual and species-wide self-awareness, self-motivation and self-organization for literally countless forms of emerging life. Today, the growth of this same sensitivity may be guiding the complex changes taking place in humanity.

What, then is "interconnectedness?" It is a relationship: when two or more physical objects are observed to operate in unison, in response to each other. In general then, interconnectedness is the cohesion of all physical matter and energy in our universe, wherein every part is seen to co-operate within a common framework, i.e. consciousness. Our universe can be seen holistically. Wherein signs of this interconnectedness is evidenced in our observations of the world at every level, e.g. quantum entanglement, neural pathways, and telecommunications networks, etc.

Perhaps, denying our interconnectedness allowed us to survive and develop as separate individuals? Now, we are achieving some measure of respect for individual rights, including a better understanding of what it may take to co-create a planetary civilization. The utilization of interconnected awareness among large groups of people

may be intelligent enough to handle pressing social and environmental dangers, especially those due to less-conscious habit patterns.



MASTERING THE UNIVERSE

If non-existence does localize existence, it would determine the evolution of "all that might ever be." There would have to be an infinite number of omnipresent axes, equivalent to an etheric reference-frame that everything moves relative to. It would not be a constant speed—as Einstein thought. It would be a nonphysical rest frame that serves as the source engine, and axis for all forms. The mixture of potential and kinetic energies could then—incrementally—co-create new forms out of nothing. Determining if our universe is growing and developing—without end—might become possible by means of this perspective, replacing current predictions of a cosmic expansion that would otherwise lead to an end to all life.

Could a Void, passively/acting throughout form, provide for a *truly frictionless* "perpetual motion machine" forbidden by the majority of mainstream scientists, who generally agree, the thermodynamic "death" of the universe is increasing from a highly organized beginning. Yet how our universe could have been so organized initially is not well explained. Modeling our universe as originating in a violent explosion may be "incomplete"—an alternative is self(less)-organization.

"Superfluidity is a state of matter in which <u>matter</u> behaves like a fluid with zero <u>viscosity</u>; where it appears to exhibit the ability to self-propel and travel in a way that defies the forces of <u>gravity</u> and <u>surface tension</u>."



"In theoretical physics and quantum mechanics, the physical vacuum is viewed by some as a superfluid. The goal of Superfluid Vacuum Theory (SVT) is to develop models that unify quantum mechanics (describing three of the four known fundamental interactions) with gravity. It is hoped that the development of such a theory would provide a single consistent model of all known interactions and elementary particles—as different manifestations of the same entity, a superfluid vacuum."

Still superfluidity at temperatures much higher than absolute zero (-273.15Kelvin) is thought to be impossible—due to the decreased coherence among particles. Yet, if non-existence—which has no temperature—occurs in concert with existing changes in temperature, might this be a defining characteristic of a medium (etheric?) that provides superconductive fluid properties for space-time, energy, and matter? So far, superfluidity, superconductivity, condensed matter systems, and nonlinear optics have been found to operate according to laws that assume the consistent, coordinating interconnectedness of an as yet "unknown medium" —to act as a constant, that is, undisturbed by any and all phenomena.

We may exist in a timeless context wherein relativistic clock time is a means to maintain that context. How else could an infinite number of constantly varying observations be compared—as a whole—without sharing one single context?

Self-awareness and *shared awareness* appear to offer the only viable solution. So, we may be capable of achieving sustainability, not by imposing more rules and regulations but by co-creating more organized ways of observing together. The reflectivity of an observational rest frame throughout all we perceive, when ignored, appears to predictably increase the amount of disorder. Wherein co-consciously embodying the presence of this rest frame together "causes" order.¹⁸

Nobel Laureate, Brian Josephson, in a recent paper claims: "Wheeler's observer-participation¹⁹ and emergent law arise naturally, rather than having to be imposed artificially. This points the way to a deeper understanding of nature, where meaning has a fundamental role to play that is invisible to quantitative science." Josephson adds: "Nature has become pervaded by patterns (signs), which through practice we have become expert at interpreting, a process with pragmatic value even if it does not lend itself to quantitative methods."²⁰

We may find that the so-called "collapse of the wave function" occurs because observation unites what is dimensionless and nonlocal with what is dimensional. The integration of form and formlessness may result in the coalescence of the entire measurement system, not just what is measured. Backward and forward causation, wave/particle duality and consciousness itself could be examples of how spatiotemporal measurement restructures and accelerates this universe, causing us to grow, inviting us to exercise the freedoms of conscious choice.

In complexity theory, autonomous observer-participants are considered only *relatively* autonomous since all observations, and their resulting measurements, must remain *invisibly* interconnected. To demonstrate this interconnectedness, a mathematical "attractor" is used to geometrically orchestrate multi-dimensional behavior around a point, or a finite set of points called a "fractal" structure (a detailed pattern repeating itself) also known as a "<u>strange attractor</u>."²¹

Iterated function systems (IFS) are mathematical structures typically used to generate fractals. They serve well as a tool for depicting the relationships between specific parts of the whole and the whole itself. Beginning with the nonlocal whole—as it has been described thus far—we let "it" take on the aforementioned process of "recreation" (as the "generating set" of the IFS) to first give rise to dimensionless points—as perhaps equivalent to the emergence of a general relativistic space-time continuum. While the means of this process are as yet unknown to science, we are within our right to regard this process in a purely abstract fashion, given that there are

those of us who ask if this process can be related in part to toroidal mechanics. This process is the first function of the IFS.

The resulting structure—the nonlocal whole and local space-time in relation to it—is the result of the *first iteration*. In this output system, there are myriad dimensionless points that can be seen as *particularizations* of the original nonlocal whole. As such, they are each representative of distinct physical locations. Yet, they share a common connection to the nonlocal whole. Thus any perception of them as separate or somehow "inherently different", is illusory. Their connection to the nonlocal whole cannot be attenuated.



Each successive iteration is acted upon by the IFS, generating complex, yet organized, forms. Then, in the second application of this functional process, each point in space-time is recast—to be seen as a localization of the inherent Void. This follows by taking into account a point's inseparability from the nonlocal whole, from which it originated. The first iteration is then seen to occur again through this second iteration—within each point in space-time. Described in physical terms, this could be considered as the coalescence of space into energy. The degree to which this occurs may vary from point-to-point, so an inequality may well be perceived. This is exactly what happened before—due to the introduction of distinct points in space. If we do

not overlook these higher levels of order, energy values are seen as no different from spatial temporality.

A pattern of hierarchical order emerges if we display these iterations spatially. At the top is the nonlocal whole—followed by space-time as an infinite set of dimensionless points. Next, an emergent energy structure exists for each given point in space-time. We can picture this as a tree diagram, as is characteristic of fractal structures. The image that is emerging is called the attractor of the IFS. Through successive iteration, this system "evolves" towards the attractor—as the whole of our reality—which we incrementally grow more accustomed to, together.

Continuing these iterations—this time at the level of energy—we find the process of specialization is occurring within each piece of energy (or *quantum*). As it is applied, the IFS creates internal "collections" of energy. This may be thought of as the emergence of physical matter, i.e. subatomic particles. This is a crucial stage. By this point, the detailing of our physics has sufficiently matured to measure, and in part, describe, the behavior of these pieces of matter. Thus, iterative processes may help us clarify the origins of physical forces.

As individual members of a society, we are not exceptions to this process. If one is to follow the same logic—beginning with large physical bodies, moving down each iteration to, say, a related sub-body— the process leads to intelligent forms of life. Consider, for example, the iterative outputs which result from starting with our local group of galaxies, then moving iteratively down: Milky Way \rightarrow Orion's Arm \rightarrow Solar System \rightarrow Earth \rightarrow Individual. Continuing even further, we see that humans are but a link in a long chain of iterated levels of existence. Continuation gives: organs, cells, organelles, proteins, molecules, atoms, particles, etc.

The choice of when to branch is that of an observer/creator—within degrees of freedom—so as to provide relevance. If the process above were to go on further, where might it end up? Nowhere, other than the nonlocal whole, for it is the Void—within each of us—which unites all. Thus any given participant in physical reality can be considered as a localized instance of nonlocal observation. Again, it is only when higher iterative levels are ignored that separation within our physical world becomes apparent. Full consideration of the creative forces at work knocks such a belief onto its side, by bringing to light the ever-present connection among all things, which here always results from the nonlocal whole.

The model just described may serve as an indicator of processes and interactions that deserve intensive study, through greater scientific precision in the future. Currently, much of the necessary technology and mathematics are as yet unavailable, thereby encouraging progression in these fields. For the time-being though, complexity

theory cannot help us definitively predict how formlessness observes and evolves threedimensional forms that change in time.

Bios theory provides tools to explore the creative processes which cause change, increasing complexity and novelty, in ways which would not occur by chance alone. As Bios charts how the interaction of opposites collaboratively generate new forms, it may be possible to show how the extreme opposition of form and formlessness evolves our awareness, allowing us to interact more collaboratively, innovatively and productively. Realizing how a formless observation results in a perceivable measurement, may help us reinvent our comprehension of how humanity can share consciousness—more consciously.



Wheeler's "observer-participants" were further developed by Bohm who saw a spatiotemporal measurement structure (e.g. perception) act as a fresh new lens for the next observation. As in us, each observation can be seen to refine and evolve our perceptual capacity (quantum mechanically) as a living system.

Josephson, Wheeler and Bohm are all using the language of quantum mechanics, in which observation is linked with measurement, referred to as a quantum mechanical observational measurement system. This essay adds that, though all measurements are quantized, this does not require the origin of observation to be quantified. Moreover, this process of quantum mechanical observational measurement may

ensure new spatiotemporal structures are being generated at an exponential rate, potentially ensuring the expansion of our space-time continuum—which would include the creation of matter and energy.

In his recently published New York Times Bestseller A Universe From Nothing, physicist Lawrence Krauss of Arizona State University assures us, "[Y]ou really can get something from nothing and stay within the bounds of physical law. There are lots of ways for nothing to produce something.... First, you have to clearly define nothing, since it isn't an official scientific term. Scientists talk about empty space as well as a state in which space and time themselves don't exist. Either type of nothing can spontaneously produce stuff. Not only will particles pop in and out of existence without violating the laws of physics, they have to."²⁴

Alan Guth adds: "Putting general relativity and quantum mechanics together, one can imagine the universe started in the total empty geometry of absolute nothing-ness and then made a quantum tunneling transition to a nonempty state." ²⁵

The transformation of manifest reality we experience every instant passing may be comprehended as the growth of our minds and bodies participating evermore purposively, meaningfully, and consciously in the evolution of life. The re-creative power of our combined awareness (as we awaken into collective consciousness, out of collective unconsciousness) has yet to be explored scientifically to any great degree and may hold surprises. ²⁶ In closing, please know this essay was cut-in-half to be published in this journal. A complete version is available here. ²⁷

Song of the Vajra From the Union of the Solar and the Lunar Tantra

"Unborn, Yet Continuing Without Interruption,

Neither Coming Nor Going, Omnipresent, Supreme Dharma, Immutable Space, Beyond Definition, Spontaneously Self-Liberating. Perfectly Unobstructed State, Existing from the Very Beginning, Self-Created, Without Location, With Nothing Negative To Reject, and Nothing Positive To Accept. Infinite Expanse, Penetrating Everywhere, Immense and Limitless, Boundless, With Nothing Even to Dissolve or Be Liberated From. Present Beyond Space And Time, Existing from the Very Beginning, Immense Dimension of Inner Space, Radiant Clarity like the Sun and Moon, Self-Perfected, Indestructible as a Vajra, Stable as a Mountain, Pure as a Lotus, Strong as a Lion, Incomparable Bliss Beyond All Limits, Illumination, Equanimity, Peak of the Dharma, Light of the Universe, Perfect Since the Very Beginning."

- Translated by: Namkai Norbu and John Shane

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