

Article

## Consciousness Creates Reality

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### Abstract

Consciousness creates reality, but the reality it creates is like a virtual reality. The holographic principle is telling us this virtual reality is imaginary in the same sense as the computer generated images of a virtual reality projected from a computer screen to the point of view of an observer outside the screen are imaginary. Only the consciousness of the observer outside the screen has an ultimate reality. The screen is always a limitation of consciousness in the sense of a bounding surface of space that encodes bits of information for everything observed within that bounded space, which inherently limits the observer's observations to things that can be observed within that bounded space. The ultimate reality of the observer's consciousness can only be understood as unlimited consciousness. Creation consciousness is not limited to the individual consciousness of an observer, but is inherently unlimited. This ultimate state of existence is like an empty space of potentiality that can only be described in negative terms as uncreated, unlimited, undivided, undifferentiated, limitless, formless, selfless, timeless, nothingness and emptiness.

**Keywords:** Consciousness, creation, reality, holographic principle.

### Introduction

One of the great unsolved problems in science is a scientific explanation that would allow us to understand the nature of consciousness. Many attempts have been made, but all have failed badly. In face of this exercise in futility, most neuroscientists have reluctantly concluded that consciousness must be an illusion created in a biological brain that gives rise to a mind. Neuroscientists accept the physical reality of a world in which a biological organism with a brain emerges that is capable of generating this illusion of consciousness as an aspect of mind. They imagine consciousness as the illusion of an observer watching the movie-in-the-mind created inside a biological brain, as that movie-in-the-mind not only displays all sensory images of the external physical world but also all internal mental images like thoughts and memories. For neuroscientists, the physical world is real, the physical brain is real, and even the brain generated movie-in-the-mind is real, but the observer watching the movie as displayed on a mental screen is taken to be an illusion of the mind.

The situation in the physical sciences is not much better. For most physicists, the physical world with its matter, energy, elementary particles, and space-time geometry is the only reality they recognize as being real. They also accept that somehow a living biological organism with a brain

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emerges in this physical reality and somehow that brain generates a mind that includes the consciousness of an observer, but they really have no good idea how this happens. Unlike neuroscientists, the physicists have a few problems that arise from the mathematical consistency, or lack thereof, of their theories. Although not well known, all conceptual progress in physics results from the resolution of paradoxes in the mathematical structure of physics.

The first problem is all theories of the creation of the physical universe along the lines of the big bang event assume there must be a state of existence that is prior to the creation of the world. For lack of a better description, this primordial state of reality is called the void or true vacuum state, which can only be understood as a state of infinite, undifferentiated nothingness, like a state of pure empty space. The second problem is quantum theory tells physicists that all states of matter and energy, even the state of the entire physical universe with its space-time geometry, only exist in a quantum state of potentiality until measured or observed, at which moment of observation those states of potentiality come into an actual observable state of existence, and so it would seem that an observer would need to be present at that moment of observation to make the measurement. At this point in the argument many theoretical physicists begin to mumble some mumbo-jumbo about how there must be something called quantum consciousness that is necessary to reduce the quantum state of potentiality to an actual observable state as the measurement is made, but they really have no idea what they're talking about. The third problem physicists face is the entire mathematical formalism of relativity theory, which describes the space-time geometry of the physical universe, is based on the principle of equivalence, which inherently relates differing observations of different observers in different accelerated frames of reference. The mathematical consistency of relativity theory is fundamentally based on the idea that the observer is only a point of view located at the origin or central point of view of a coordinate system that defines an accelerated frame of reference. Just as quantum theory seems to require an observer to be present to make observations that reduce a quantum state of potentiality to an actual observable state, relativity theory also seems to require an observer to be present to make observations in differing accelerated frames of reference.

## **The Problem of Paradoxes of Self-Reference**

These scientific problems all come down to an assumption about the nature of consciousness. The conventional scientific assumption is that consciousness arises in a brain inside the body of a person that exists inside the physical universe. The problem with this assumption is it makes any possible scientific explanation of consciousness logically inconsistent if consciousness itself is what understands the scientific explanation of consciousness. This kind of assumption is a logical error in the sense of a paradox of self-reference. No scientific formalism that includes paradoxes of self-reference can be logically consistent. The assumption that consciousness can understand the scientific explanation of consciousness is a mistaken assumption.

If consciousness creates reality, what creates consciousness? If everything in existence is created from consciousness, where does consciousness come from? The only possible answer is nothing creates consciousness. The ultimate nature of consciousness in-and-of itself must be uncreated. Any possible scientific explanation about the nature of consciousness we can imagine would have to be part of the reality that consciousness creates, which is logically impossible in the sense of a paradox of self-reference. The only correct assumption we can ever make about the existence of consciousness is that it is uncreated. The only valid thing we can say is that it exists.

The fundamental reason neither neuroscience nor physics can explain consciousness is that we would need to understand such an explanation of consciousness. The big question is who would understand such a scientific explanation of consciousness? The only possible answer is our own consciousness would understand the scientific explanation of consciousness. That is logically impossible. The assumption a scientific explanation is possible is a logical error. This assumption is an example of a paradox of self-reference that would make the logical formalism of the science the explanation is based upon logically inconsistent.

What are we to make of all this confusion? The answer is all we have to do is turn the ideas of neuroscience around, and see things from the perspective of the other-way-around. The first point is consciousness does indeed exist and is not an illusion, but consciousness in-an-of itself is not part of the reality it creates. Consciousness as the ultimate nature of reality is uncreated. It is possible to say consciousness creates reality, but the created reality of a physical world or a mind that consciousness perceives is a lesser form of reality, like a virtual reality. In some sense, only uncreated consciousness is really real, while the created reality of a physical world or a mind is the real illusion, like images of a virtual reality projected from a computer screen to an observer outside the screen. It is the projected sensory images of the external physical world and the internal images of mental imagination, the movie-in-the-mind, that are the illusion, which are no more real than the images of a virtual reality projected from a computer screen, while only the consciousness of the observer outside the screen has an ultimate reality. In colloquial terms, the observer observing the images of the movie-in-the-mind projected from a mental screen is called the mind's eye, but in spiritual terms, the observer could be called the Eye of God, since when this view is ascended, it gives a God's Eye view of the world.

Explaining how consciousness creates reality is not all that difficult once some basic concepts of quantum gravity are understood. Although quantum gravity sounds like an arcane topic for discussion, it's fairly easy to understand intuitively without the use of much mathematics, since it's all based on geometric concepts that can be understood intuitively. There's something about geometry that's fundamental to our existence as sentient beings, which allows for an intuitive understanding of geometric concepts. The basic outline of the explanation can be found in the recent book by Amanda Gefter: *Trespassing on Einstein's Lawn*, as she surveys the landscape of modern physics and makes sense of recent discoveries in physics and cosmology.

The explanation can also be found in the concepts Nisargadatta Maharaj used to explain the true nature of reality in *I Am That*. For Nisargadatta, this was not really an explanation, since he directly experienced the true nature of reality by breaking free of the emotional bonds of ignorance, and only described what he directly experienced. He could see it directly. Anyone open to these ideas will find it mind-blowing that concepts of modern physics and cosmology are so closely correlated with the testimony of enlightened beings like Nisargadatta. If one's mind is blown away, one can directly see it for oneself, which is the ultimate experiment of one.

### **First Principle: Consciousness Exists**

To say that consciousness exists is really the same as to say *I Am*. Everyone intuitively knows that they exist, but as what do they exist? If we understand the world as a virtual reality, like the images projected from a computer screen to the point of view of an observer outside the screen, then to say that one exists as a person in the world is not true, since the observable form of the person is only another image of something in that world projected from the screen. It is much more accurate to say that one exists as the consciousness of the observer present at the point of view outside the screen to which the observable images of that person are projected.

The problem is the consciousness of the observer present at a point of view that arises in relation to a screen that projects the images of everything in an observable world cannot be the ultimate nature of reality. There must be a source from which both the screen and the consciousness of the observer arise. The big scientific clue we have is that all theories of the creation of the physical universe along the lines of the big bang event tell us the world is created from a more fundamental state of existence called the void or true vacuum state, which can only be described in negative terms as unlimited, undifferentiated nothingness, or as an empty space of potentiality. The true vacuum state must have the potential to create the physical universe in a big bang event, but also must have the potential to give rise to the consciousness of the observer that observes images of that observable world as images of that world are projected from a screen to the point of view at which the consciousness of the observer arises.

This fundamentally tells us that consciousness in its ultimate primordial state can only be described in negative terms as nothingness or an empty space of potentiality. This void of nothingness is the true vacuum state from which the physical universe arises. There is only confusion about this point because the consciousness of an observer that observes a world always arises at a limited point of view as that world is created. Consciousness always exists at a limited point of view whenever a world is created and perceived. Prior to the creation of that world, consciousness exists as an unlimited empty space of potentiality. Limitation of consciousness to a point of view inherently reflects the limited way in which a world is created. Without that limitation of consciousness, consciousness is unlimited. Limited existence is inherently differentiated, while unlimited existence is inherently undifferentiated.

## Second Principle: Energy Is an Expression of Consciousness

Energy as expressed in the world is always an expression of consciousness. Consciousness at rest expresses no energy. Consciousness in motion expresses energy. Although this seems odd, this is exactly what relativity theory is telling us with the principle of equivalence. An observer in an accelerated frame of reference expresses energy. Relativity theory tells us the exertion of every force, like gravity, is equivalent to an accelerated frame of reference. The exertion of a force always implies the expenditure of energy, like a rocket-ship that must expend energy through the force of its thrusters as it accelerates through space. The force of gravity is always equivalent to an observer in an accelerating frame of reference, which requires the expenditure of energy.

An observer in an accelerated frame of reference is consciousness in motion. An accelerated observer always experiences a force, which requires the expenditure of energy. The alternative is consciousness at rest, within which state the observer experiences no acceleration or force and expends no energy. In relativity theory, this state in which the observer experiences no force or acceleration is understood as an observer in a freely falling frame of reference.

In relativity theory, an observer is understood to be located at the central point of view of a frame of reference or the origin of a coordinate system. From the observer's own perspective, the observer does not move through space since its space is defined in its own coordinate system, but if that frame of reference is accelerated, the observer will experience a force, which implies the expenditure of energy. From the perspective of another observer in another frame of reference, the accelerating observer appears to follow an accelerated world-line through the space-time geometry of the other observer. The accelerating observer's observations in space are always limited by an event horizon, which is as far out in space as the observer can see things in space.

The observer's horizon is a two-dimensional bounding surface of space that limits the observer's observations of things in space. Since nothing can travel faster than the speed of light through three dimensional space, and even a light ray cannot cross the observer's event horizon and reach the accelerating observer's point of view, nothing is observable beyond the observer's horizon. If the observer stops its acceleration and enters into a freely falling frame of reference, which implies energy is no longer expended, the observer's horizon apparently disappears and the observer's observations in space are no longer limited, or so it would seem. The irony that will be explored in this article is that when observations become unlimited, nothing is observed.

The remarkable recent discovery of cosmology is dark energy, which is the energy that creates the physical universe in the first place along the lines of the big bang event. All theories of the big bang assume dark energy, which is the energy that puts the *bang* in the big bang event. This explosive energy shatters the undivided unity of the nothingness of unlimited empty space. Dark energy is understood in relativity theory as the accelerated expansion of space that always expands relative to the central point of view of an observer, which is literally the central point of

singularity of the big bang event. Not only is dark energy an essential ingredient in all theories of the big bang, but dark energy is also measurable at the present time in terms of the rate with which distant galaxies are observed to accelerate away from us. Dark energy gives rise to the accelerated expansion of space where space appears to expand away from the central point of view of the observer at an accelerated rate, faster the farther out the observer looks into space.

The accelerated expansion of space always appears to expand relative to the central point of view of an observer, faster the farther out the observer looks into space. At some point, space appears to expand away from the observer at the speed of light, and due to the limitation of the speed of light as the limiting rate of information transfer in three dimensional space, which is to say nothing can travel faster than the speed of light, nothing is observable beyond that point. This limitation in observation defines a cosmic horizon that surrounds the observer's central point of view and limits the observer's observation of things in space. The observer's cosmic horizon is as far out in space as the observer can see things in space. This is the nature of the limitation that defines the observer's world. Nothing is observable to the observer beyond its cosmic horizon.

The current measured value of dark energy in the physical universe gives a size of the observable universe that is the same order of magnitude in light years as the age of the universe. All theories of the big bang event assume the value of dark energy at the time of the big bang was much greater than its current value, and some kind of transition from a larger to a smaller value of dark energy took place as the physical universe evolved over the course of time. As this transition took place, the cosmic horizon inflated in size and the observable universe cooled in temperature.

### **Third Principle: Information Is a Consequence of the Expression of Energy**

Information as encoded in the world is a direct consequence of the expression of energy by consciousness. The accelerated expansion of space that occurs as dark energy is expressed always expands relative to the central point of view of an observer, which is the central point of singularity of the big bang event. Due to the limitation of the speed of light as the limiting rate of information transfer in three dimensional space, a cosmic horizon or bounding surface of space surrounds the observer's central point of view and limits the observer's observations of things within that bounded space. If non-commutative geometry is applied to the bounding surface as a way to specify a finite number  $n$  of quantized position coordinates on the surface, those position coordinates are no longer infinitesimal points but are smeared out into area elements like pixels on a computer screen that encode  $n$  bits of information in a binary code of 1's and 0's, typically as the  $n$  entangled eigenvalues of an  $SU(n)$  matrix. This way of encoding bits of information or entropy on a bounding surface of space is called the holographic principle.

The concept of entropy in thermodynamics is understood as information. All things have entropy because all things contain information. Fundamentally, this information is understood to arise when dynamical degrees of freedom are quantized in quantum theory. Information comes in bits

due to how dynamical degrees of freedom are quantized, like a spin  $\frac{1}{2}$  variable that can only point up or down. A spin  $\frac{1}{2}$  variable is represented by an SU(2) matrix, and the eigenvalues of the matrix encode information in a binary code, like a switch that is either on or off. The mystery of quantum theory is what are the fundamental dynamical degrees of freedom that are quantized in order to explain the fundamental nature of entropy and information in the world.

Physicists have long had the expectation that this mystery would finally be solved when quantum theory is unified with relativity theory to produce a theory of quantized space-time geometry or quantum gravity. That is the kind of theory that is needed to explain the fundamental nature of all the information in the world. What was not expected was the fundamental dynamical degrees of freedom would be defined on a bounding surface of space, like an observer's horizon that arises in the observer's accelerated frame of reference. Not only was this result not expected, it was not wanted since it implies the holographic principle and an observer-centric view of the world.

The holographic principle is automatically in effect whenever non-commutative geometry is applied to a bounding surface of space as a way to specify a finite number of quantized position coordinates on the surface, which is inherently an observer's horizon. The quantized position coordinates are represented by non-commuting variables, which are the fundamental dynamical degrees of freedom that are quantized. When quantized, a position coordinate on the bounding surface that is represented by a non-commuting variable is smeared out into an area element like a pixel that encodes a bit of information. In quantum gravity, the pixel size is about a Planck area,  $\ell^2 = \hbar G/c^3$  given in terms of Planck's constant, the gravitational constant and the speed of light. The total number of encoded bits of information is given in terms of the surface area, A, of the observer's horizon as  $n = A/4\ell^2$ . For any macroscopic bounded region of space, this is a huge number of bits of information since the Planck area is so incredibly small.

How do we understand the physical universe in the context of an observer's horizon and the holographic principle? The answer is shocking, but there is no other possible explanation. The observer's horizon is understood to act as a holographic screen that encodes bits of information and projects images of the observer's world to its central point of view, much like images projected from a computer screen to the point of view of an observer outside the screen. This is inherently an observer-centric view of the world, since every observer's world is defined on its own holographic screen that arises as an event horizon in the observer's accelerated frame of reference as energy is expended. A physical universe arises as dark energy is expended.

The shocking answer is that the projected images are the nature of imagination, which is the nature of the mind. Animation of images naturally arises in the flow of energy through the observer's world, which is understood in the sense of thermodynamics and the flow of heat. Organization of images into distinct forms that self-replicate their forms can be understood as a consequence of bits of information tending to align due to the entanglement of information, which is a natural consequence of the holographic encoding of bits of information on a screen,

while disorganization of forms can be understood as the effect of the increase in entropy that occurs as heat flows in a thermal gradient. The laws of physics are understood to emerge in the world as thermodynamic equations of state due to the way bits of information are encoded on a holographic screen and the absolute temperature of that bounding surface of space. The laws of physics are not encoded in reality, but spontaneously emerge in the holographic world that is defined within that bounded region of space as energy flows through that world. Everything the observer can observe in its holographic world emerges in the flow of energy. Everything that can be perceived in that world, including mental images, is an aspect of the movie-in-the-mind.

## **The Information Loss Paradox**

Why is the holographic principle the fundamental information building block of the physical universe? The answer is the logical consistency of the laws of physics when relativity theory is unified with quantum theory. This logical consistency is best demonstrated by the information loss paradox of a black hole. The holographic principle was first proposed by 't Hooft and Susskind as a way to unify relativity theory with quantum theory and explain the quantization of space-time geometry or the quantum gravity of a black hole in terms of how entropy or bits of information are encoded on the event horizon of a black hole. They discovered information or entropy is not encoded inside the black hole, but rather on the bounding surface of the event horizon, much like bits of information are encoded on the pixels of a computer screen.

The basic problem is that as observed by an accelerated observer outside the black hole, the black hole event horizon appears to have a temperature and radiates away into space a kind of thermal radiation called Hawking radiation. If the horizon temperature is higher than that of the surrounding space, the black hole evaporates away as it radiates away thermal radiation. The black hole can evaporate away into nothing. The holographic principle makes sense of Hawking radiation from the surface of the event horizon and resolves the paradox of information loss as the black hole appears to radiate away Hawking radiation and evaporates away into nothing.

Nothing can escape from inside a black hole because the force of gravity is so strong at the event horizon that even light cannot escape. The things that fell into the black had entropy, and so the black hole has entropy. If the information for all the things that fell into the black hole were encoded inside the event horizon of the black hole, that information would forever be trapped inside the black hole and could not escape away as Hawking radiation is radiated away from the event horizon, and so we have the information loss paradox.

What happens to all the bits of information for all the things that apparently fell into the black hole as the black hole appears to evaporate away into nothing? Where does all the information go? The answer is strange, but it is the only possible answer. In quantum gravity, we can only really speak about whatever any particular observer observes in any particular frame of reference. Comparing the differing observations of different observers in different frames of



reference is strictly forbidden. The information loss paradox only arises when we try to compare the differing observations of an accelerated observer outside the black hole with a freely falling observer that falls into the black hole, and that kind of comparison is not permitted in quantum gravity. From the point of view of the accelerated observer outside the black hole, nothing ever really fell into the black hole in the first place, since gravitational time dilation at the surface of the event horizon is infinite, and it would take an infinite amount of time for anything to cross the event horizon from that accelerated perspective. From the perspective of the freely falling observer, things quickly cross the event horizon and fall into the black hole. Which perspective is correct? The answer is both perspectives are equally valid, but it is not permitted to compare them in quantum gravity, since the accelerated external observer can never communicate about its observations with a freely falling observer that crosses the event horizon.

In quantum field theory, Hawking radiation as observed by an accelerated external observer is understood to arise as entangled virtual particle-antiparticle pairs that become separated at the event horizon. Through the mathematics of the event horizon, this separation turns separated virtual particles into observable particles that can be observed by the external observer. From the perspective of the external observer, the event horizon appears to have a temperature and radiate away the thermal radiation of Hawking radiation. The temperature of the event horizon implies thermal energy, which is randomized kinetic energy. What gives rise to this temperature or thermal energy? The answer is the apparent thermal energy of the event horizon arises from the energy expended in the external observer's accelerated frame of reference, within which the event horizon appears to have a temperature. This only appears to happen from the external observer's accelerated perspective. If that temperature is hotter than the temperature of the surrounding space, the black hole appears to radiate away thermal radiation into space and evaporates away into nothing, but what happens to all the bits of information for all the things that apparently fell into the black hole from the perspective of a freely falling observer?

The holographic principle resolves the information loss paradox, since from the perspective of the accelerated external observer, all those bits of information are not really encoded inside the black hole, but rather on the event horizon, and so all the information escapes away from the black hole with the Hawking radiation as the black hole evaporates away.

The event horizon of a black hole is a bounding surface in space where from the perspective of an accelerated external observer the force of gravity is so strong that even light cannot escape from inside the black hole and reach the accelerated point of view of the external observer. Instead, the accelerated external observer observes the event horizon to radiate away Hawking radiation as a kind of thermal radiation. The information loss paradox fundamentally arises because from the perspective of a freely falling observer that falls through the event horizon, there is no force of gravity, the horizon is only an imaginary surface in space, and there is no Hawking radiation. The freely falling observer observes none of it. Which perspective is correct?

The principle of equivalence says both perspectives are equally valid, but it is not permitted to compare them in quantum gravity. Due to the nature of the event horizon that limits the external observer's observations of things in space, these apparently contradictory observations are mutually exclusive and cannot be compared. Only the holographic principle can resolve this paradox and make sense of these apparently contradictory observations, since it tells us all the bits of information for whatever the external accelerated observer can observe are encoded on the horizon, which acts as a holographic screen that projects observable images to the external observer's point of view much like a computer screen projects images to an external observer.

Soon after proposed, string theory in anti-de Sitter space was explicitly shown to demonstrate the holographic principle. Anti-de Sitter space arises from Einstein's theory of general relativity with a negative cosmological constant. String theory demonstrates the encoding of entropy on an anti-de Sitter event horizon is much like the encoding of entropy on a black hole horizon, and is equivalent to a theory of quantum gravity in the space bounded by the anti-de Sitter horizon. In other words, gravity in the bounded space is equivalent to entropy on the bounding surface of that space. The holographic principle explains that the way one gets from entropy to gravity is through holographic projection from the bounding surface into the bounded space, much like the images of a movie are projected from a movie screen to an observer out in the audience.

Unfortunately, string theory cannot be formulated in de Sitter space, which is the kind of space that we find ourselves to be within inside the physical universe. De Sitter space arises from Einstein's theory of general relativity with a positive cosmological constant, which is like a force of anti-gravity that causes the accelerated expansion of space relative to the central point of view of an observer. For various reasons this repulsive force is now called dark energy. String theory is not compatible with dark energy. The good news is that string theory is really just a special case of non-commutative geometry, which is compatible with dark energy. All geometry is compatible with non-commutative geometry, even fractal geometry. Penrose tiling is an example of fractal geometry that is also a non-commutative geometry.

All geometries are special or limiting cases of non-commutative geometry. The holographic principle is automatically in effect whenever non-commutative geometry is applied to a bounding surface of space as a way to specify quantized position coordinates on the bounding surface. The quantized position coordinates on the bounding surface act like Planck size pixels that encode bits of information. The expression of dark energy gives rise to an observer's cosmic horizon or bounding surface of space. When non-commutative geometry is applied to the observer's horizon, the holographic principle is automatically in effect. The holographic principle is perfectly consistent with our physical universe and its de Sitter space, except it tells us every observer has its own physical universe defined on its own observer-dependent cosmic horizon. This naturally gives rise to an observer-centric view of the world. This scientific argument has no logical flaws, paradoxes or inconsistencies.

## Consensual Reality and the Emergent Laws of Physics

The holographic principle tells us the observer's horizon encodes all the bits of information for whatever it observes in its world. The observer's horizon is a bounding surface of space that acts as a holographic screen that projects all the images of things in that world to the observer's central point of view, which is a point of singularity. Those projected images are holographic and appear to arise within the bounded space of the observer's world, but just like with a computer generated virtual reality, the projected images are defined by bits of information encoded on pixels on the screen, and in reality are only projected to the observer's central point of view.

A consensual reality shared by many observers located at different points of view in empty space becomes possible with information sharing among overlapping screens, like in a Venn diagram. This kind of information sharing among overlapping bounded spaces and bounding surfaces of space is much like that which occurs in a network of overlapping screens, like the internet.

What about the laws of physics that apparently govern events in the observer's world? Ted Jacobson has shown Einstein's field equations for the space-time metric, which is the law of gravity that describes the projected and animated space-time geometry of the bounded space, arise as thermal averages or thermodynamic equations of state from the way entropy or bits of information are encoded on the bounding surface of that space and the absolute temperature of the bounding surface. The basic reason is the second law of thermodynamics, which is really not a law of physics but a statistical average about the random flow of thermal energy. As heat flows across a bounding surface of space, the second law tells us the entropy of the bounded space changes. The holographic principle then tells us the bounding surface must change, which tells us the geometry of the bounded space must change. Since the geometry of the bounded space is described by Einstein's field equations for the space-time metric, which describe how space-time geometry is projected from the bounding surface like a screen output to an observer outside the screen and animated over a sequence of screen outputs like the frames of a movie the observer is watching, the space-time geometry of the bounded space only arises as a thermal average from the way entropy or bits of information are encoded on the bounding surface and the average thermal energy or temperature of the bounding surface.

The second law of thermodynamics follows directly from the idea of the equal partition of energy. The basic idea is that any isolated system no matter how complex is composed of a finite number of independent dynamical degrees of freedom, and that at thermal equilibrium, each degree of freedom is characterized by the same amount of thermal energy, which is understood as randomized kinetic energy. The absolute temperature of the system is defined in terms of the thermal energy per degree of freedom as  $E=kT$ . The total amount of thermal energy in the system is then given in terms of the total number of degrees of freedom as  $Q=nkT$ . The entropy of the system is defined in terms of the number of degrees of freedom as  $S=kn$ , and so  $S=Q/T$ . At constant temperature, a change in the thermal energy of the system gives rise to a change in

entropy as  $\Delta S = \Delta Q/T$ . These ideas were developed before the fundamental nature of the degrees of freedom were understood. In classical physics, the degrees of freedom are taken to be continuous variables, like the position coordinate of a particle in space. In quantum theory, the degrees of freedom are quantized in discrete units, like quantized energy levels. Quantum theory is based on the idea of some sort of fundamental or elementary particles that are characterized by non-commuting position and momentum variables. It has long been known that non-commuting position and momentum variables of particles cannot be the fundamental degrees of freedom of a unified theory of quantum gravity, for which the isolated system of interest is some bounded region of space, otherwise known as the observable universe. It was expected that these fundamental degrees of freedom would arise from quantized space-time geometry, but what was not expected was that space-time geometry is not quantized in some three dimensional region of space, but rather on the two dimensional bounding surface of that region of space.

The holographic principle is a direct result of quantizing space-time geometry on a bounding surface of space, where the fundamental dynamical degrees of freedom are non-commuting position coordinates on the surface. Each non-commuting position coordinate on the surface acts like a pixel on a computer screen that encodes a bit of information. If  $n$  non-commuting position variables are defined on the surface, the fundamental dynamical degrees of freedom are  $n$  bits of information, which are quantized in a binary code of 1's and 0's like a spin variable that can only point up or down and acts like a computer switch that is either on or off. Non-commutative geometry gives a specific mathematical representation for the  $n$  degrees of freedom in terms of the  $n$  eigenvalues of an  $SU(n)$  matrix, and specifies the total number of bits of information encoded on the bounding surface in terms of the surface area  $A$  as  $n = A/4\ell^2$ , where  $\ell^2 = \hbar G/c^3$ . The holographic principle also specifies the absolute temperature of the bounding surface as observed by a distant observer. For a spherical surface of radius  $R$ , the absolute temperature is given as  $kT = \hbar c/2\pi R$ . The holographic principle gives specific mathematical representations for both entropy and temperature in terms of geometric concepts, but the quantized space-time geometry that specifies the fundamental dynamical degrees of freedom of any bounded region of space is not three dimensional space but rather the two dimensional bounding surface of that space.

Every observer in an accelerated frame of reference has an event horizon, which is a bounding surface of space. When non-commutative geometry is applied to the event horizon as a way to specify a finite number of quantized position coordinates on the horizon, the holographic principle is automatically in effect. This quantization of position coordinates on the horizon is the essence of quantum gravity, which explains how quantum theory is unified with relativity theory. The observer's horizon then acts as a holographic screen that encodes all the quantized bits of information for whatever the observer observes in its world, which are the observable images projected from the observer's screen to its central point of view. Einstein's field equations for the space-time metric, which is the law of gravity, naturally arise from the quantization of position coordinates on the horizon and the absolute temperature of the horizon

as thermal averages for whatever is observed in the bounded space, and describe the projected and animated space-time geometry of the observer's world. The space-time metric is a measure of the curvature of the projected and animated space-time geometry of the bounded space.

When the usual unifying mechanisms of super-symmetry and the Kaluza-Klein mechanism of extra compactified dimensions of space are applied to Einstein's field equations, all the standard quantum fields of the standard model of particle physics naturally arise as extra components of the space-time metric, which describe the electromagnetic and nuclear forces along with all the fermion and boson particles of the standard model. An elementary particle is understood as the quantum of the field, such as a photon which is the quantum of the electromagnetic field. The quantum of the field arises as a quantized wave-packet of field energy and momentum.

The quantum fields of the electromagnetic and nuclear forces are understood to arise as extra components of the space-time metric through the unification mechanisms of super-symmetry and extra compactified dimensions of space, which can be understood through the mechanism of non-commutative geometry. These geometric mechanisms give rise to all the usual laws of physics, which are not really laws as they only have the validity of thermal averages.

## **The Nature of the Quantum State & Lessons of Unification**

Most physicists have not understood the essential nature of quantum theory. As is well known, wave equations like the Schrodinger equation only give rise to quantized values like energy levels when solved with periodic boundary conditions. This tells us in some fundamental way the space we perceive is compactified, like the surface of a sphere that encompasses a three dimensional region of space. In a very real sense, our perception of three dimensional space is a holographic illusion that arises from a bounding surface of space, like three dimensional images projected from the surface of a hologram. In a very basic way, Einstein's field equations for the space-time metric are the most fundamental wave equations, and all other wave equations, like the Schrodinger equation, Maxwell's equations and the Dirac equation, are derivative of Einstein's equations. Solving the Schrodinger equation for the quantized energy levels of an electron orbiting a proton in an hydrogen atom is an example of solving a wave equation with periodic boundary conditions. All explorations of the unification of quantum theory with relativity theory tell us that wave equations are not the most fundamental principle in physics. The holographic principle is more fundamental than wave equations.

The Schrodinger equation is only another wave equation. The Schrodinger equation for an electron orbiting a proton in a hydrogen atom is a non-relativistic limit of the Dirac equation. All the wave-functions for all wave equations arise as extra components of the space-time metric with the unification mechanisms of super-symmetry and extra compactified dimensions of space. Quantum theory tells us that wave-functions give representations for point particles in the sense of probability amplitudes that specify where particles can be observed to be localized at some

point in space at some moment of time. The wave-function as a probability amplitude is the nature of the quantum state that gives the probability for observing the particle at any possible location, but to observe the particle's actual location, the wave-function must be reduced to an actual state. Wave equations fundamentally give a point particle description of the world.

The holographic principle is more fundamental than a point particle description of the world and more fundamental than wave equations. The best way to operationally understand the holographic principle is with non-commutative geometry applied to a bounding surface of space, which explains how all fundamental bits of information for any bounded region of space, otherwise known as an observable world, are encoded on the bounding surface. That is the fundamental nature of quantum theory, not wave equations.

## **The Holographic Principle is the Ultimate Scientific Concept**

If we want to conceptualize the nature of the world with scientific concepts, the holographic principle is as far as we can go since it is the ultimate scientific concept. Beyond the holographic principle is only nothingness and void, which cannot really be conceptualized, although we can try to describe it as an empty space of potentiality. The potentiality of this empty space cannot be conceptualized, since it is the source of all spatial dimensions. Even the dimension of time arises from it through its potential to express animating energy.

It helps to review why the holographic principle is the ultimate scientific concept. All scientific concepts are mathematical concepts. The first scientific concepts arose with the development of classical mechanics, which assumed the absolute nature of space and time and attempted to describe the world in terms of the motion of idealized point particles through space and time. Motion was found to follow the path of least action, where action was expressed in terms of the dynamic balance between kinetic energy and potential energy. It was eventually discovered that thermodynamic phenomena not only required thermal energy, which is randomized kinetic energy, but also entropy, which is the idea of some kind of fundamental bits of information that characterize the nature of the world. Field theory was soon discovered, both in terms of Maxwell's theory of the electromagnetic field and Einstein's theory of the gravitational field. The gravitational field was understood as the dynamic curvature of space-time geometry and was described in terms of the space-time metric, which measures that curvature.

Unification of the electromagnetic field with the gravitational field became possible with the extra compactified dimensions of space postulated with the Kaluza-Klein mechanism, where the electromagnetic field was understood as extra components of the space-time metric that arise due to an extra compactified dimension of space. With the development of quantum theory, all fields became quantized fields, where a particle was understood as a quantized wave-packet of field energy and momentum. The strong and weak fields of the nuclear forces were understood to arise from the Kaluza-Klein mechanism like the electromagnetic field, but with six extra

compactified dimensions of space. Particle charges, like electric and nuclear charges, were understood to arise as momentum quantized in the extra compactified dimensions of space. Even the Schrodinger equation for the quantum wave-function is really just another field theory. The Schrodinger equation for an electron orbiting a proton in a hydrogen atom is the non-relativistic limit of the Dirac equation, which describes the electron field. Even the electron's Coulomb potential energy is a limit of the quantized electromagnetic field energy between the proton and electron.

The problem is none of this mathematical formalism is fundamental except for the concept of entropy, which describes the fundamental dynamical degrees of freedom that are quantized as bits of information in quantum theory. This is the fundamental problem of how to unify the quantum fields of the electromagnetic and nuclear forces in a consistent way with Einstein's equations for the space-time metric, which describes the gravitational field. The Physicist John Wheeler called the idea that everything observable in the world, including elementary particles and space-time geometry, is reducible to fundamental bits of information, like digital images projected from a computer screen to the point of view of an observer outside the screen, the concept of *It from Bit*. The expectation was unification would proceed through the quantization of space-time geometry, which would explain the fundamental nature of the bits of information.

What was not expected was that space-time geometry can only become quantized on a bounding surface of space, and that whatever appears to happen in the bounded region of space is only a holographic projection from the bounding surface, which acts as a holographic screen, to the point of view of an observer, which is a point of perceiving consciousness at the central point of singularity of that bounded space. All the fundamental bits of information are encoded on the bounding surface of space, which can only arise as an observation-limiting event horizon in the observer's accelerated frame of reference as energy is expended. In reality, whatever appears to happen in the bounded space is imaginary, no more real than the animated images of a movie projected from a movie screen to the point of view of an observer out in the audience of empty space. Whatever appears to happen in the bounded space only looks real because it is a holographic projection, and only feels real because it is energetically animated. In reality, only the consciousness of the observer out in empty space has an independent existence and is ultimately real, but that ultimate reality can only be described as void or nothingness.

## **Yin-Yang Balance in the Exponentially Expanding Universe**

The remarkable recent discovery of modern cosmology is observations indicate the total energy of the observable universe is exactly zero. This is possible in relativity theory as the negative potential energy of gravitational attraction can exactly cancel out the total amount of dark energy and all forms of positive energy arising from dark energy. The fact the total energy of the observable universe exactly adds up to zero tells us something important. Since everything in the

world is composed of energy and all that energy ultimately adds up to zero, this tells us that everything is ultimately nothing.

How do we understand that everything is ultimately nothing? The answer is found in all theories of the big bang. All theories of the creation of the physical universe along the lines of the big bang assume the creative energy is dark energy, which is the accelerated expansion of space that always expands relative to the central point of view of an observer, which is the point of singularity of the big bang. In some mysterious way, the nothingness of the true vacuum state, which is like an empty space of potentiality, gives rise to the accelerated expansion of space. The positive energy of this accelerated expansion of space, which we call dark energy, is always exactly cancelled out by the negative potential energy of gravitational attraction, and so it is as though nothing ever happens. Everything ultimately adds up to zero.

If we take the big bang event seriously, we understand that at the moment of creation of the observable universe a great deal of dark energy is expended. That world is initially only about a Planck length in size, but then inflates in size due to an instability in the amount of dark energy. This instability in dark energy is like a process that burns away dark energy. The big bang hypothesizes that at the moment of creation dark energy takes on a maximal value, but due to an instability in the amount of dark energy, the value transitions to a lower value. This transition is like a phase transition from a metastable false vacuum state to a more stable vacuum state of lower energy. The most stable state, the true vacuum state, is a state with zero dark energy.

The instability in dark energy is like a process that burns away dark energy. The expenditure of dark energy always breaks the symmetry of empty space by constructing an observation limiting cosmic horizon that surrounds the observer at the central point of view, and the transition to a lower value undoes this broken symmetry. As dark energy burns away to zero, the cosmic horizon inflates in size to infinity and the symmetry is restored. We understand this undoing of symmetry breaking is like a phase transition from a false vacuum state to a true vacuum state. As the phase transition occurs, dark energy burns away and heat is radiated away. This idea is also consistent with the current measured value of dark energy, based on the rate with which distant galaxies are observed to accelerate away from us, which gives the size of the observable universe in light years as the same order of magnitude as the age of the universe.

This burning away of dark energy also explains the normal flow of energy in the observer's world in terms of the second law of thermodynamics. Relativity theory tells us the radius,  $R$ , of the observer's cosmic horizon is inversely related to the density of dark energy, while the holographic principle tells us the absolute temperature of the observer's horizon is inversely related to its radius. At the moment of creation,  $R$  is about a Planck length and the absolute temperature is maximal. As dark energy burns away to zero,  $R$  inflates in size to infinity, and the temperature cools to absolute zero, which is called the heat death of the universe. The second law simply says that heat tends to flow from hotter to colder objects because hotter objects radiate



away more heat as thermal radiation. The instability in dark energy explains the second law as dark energy burns away, the observer's world inflates in size and cools in temperature, and heat tends to flow from hotter states to colder states of the observer's world. The normal flow of energy through the observer's world reflects this normal flow of heat as dark energy burns away and the observer's world inflates in size and cools. This normal flow of energy naturally arises in a thermal gradient. This also explains the mystery of *time's arrow*, as the normal course of time is related to the normal flow of energy through the observer's world. As far as the holographic principle goes, a thermal gradient is also a temporal gradient. Time flows because heat flows.

How do other forms of energy, like mass energy, arise from dark energy? The answer is symmetry breaking. All forms of positive energy arise from dark energy through symmetry breaking. As dark energy burns away, high energy photons are created, and these photons can create particle-antiparticle pairs, like proton-antiproton pairs. One of the mysteries of cosmology is why there are so many protons in the universe and so few antiprotons. Symmetry breaking gives the answer. At high energies, protons can decay into positrons and anti-protons into electrons, but there is a difference in the decay rates due to a broken symmetry called parity violation, and so more antiprotons decay than protons. As the universe cools, protons become relatively stable, and so that's what's left over. Even the mass of the proton arises through a process of symmetry breaking called the Higgs mechanism. The expenditure of energy that characterizes all the gauge forces, like electromagnetic energy in a living organism or nuclear energy in a star, all arise from dark energy through a process of symmetry breaking, but all of this positive energy is exactly cancelled out by the negative potential energy of gravitational attraction, and so in the end, it is as though nothing ever happens.

The holographic principle as understood with non-commutative geometry in the context of dark energy tells us that ultimately the laws of physics are not encoded in reality. Instead, the laws of physics spontaneously emerge as thermal averages as heat flows in a thermal gradient. In a similar sense of how water freezes into ice as heat flows away from water molecules, the laws of physics that apparently govern events in the observable universe spontaneously emerge or freeze out from the underlying state of potentiality that describes all possible laws of physics. This is an example of spontaneous symmetry breaking, which naturally occurs as dark energy burns away and the observable universe inflates in size and cools in temperature.

The normal flow of energy through the observer's world is a consequence of the second law of thermodynamics, which describes the random flow of thermal energy. Heat tends to flow from hotter to colder objects, and also from hotter states to colder states of the observer's world. The observer's world is not at thermal equilibrium, which is why heat flows. This is purely a statistical consequence of hotter objects tending to radiate away more heat. As heat flows in a thermal gradient, entropy, which is the disordering of information inherent in objects as a consequence of the randomization of thermal energy, tends to increase, which tends to disorder objects, like a piece of ice that becomes more disordered when it melts into water as heat flows

into it and chemical bonds are broken, or the flow of heat from the sun to the earth which arises through the dispersion of photons into more randomized states. This normal flow of heat in a thermal gradient and the corresponding increase in entropy that accompanies the flow of heat is what gives rise to the normal flow of energy through the observer's world.

## **Organization versus Disorganization: The Balancing Effects of Entanglement and Entropy in the Struggle between Life and Death**

There is a competing process that tends to balance out the normal increase in entropy or disorder that occurs as heat flows in a thermal gradient. This balancing process is the tendency for coherent organization of information to develop, which allows for the organization of objects into distinct forms that coherently self-replicate their forms and for distinct forms to become inter-related. This tendency for coherent organization to develop is a natural aspect of a holographic world, since all the bits of information encoded on a holographic screen are entangled, typically as the  $n$  entangled eigenvalues of an  $SU(n)$  matrix that arise when a finite number of position coordinates are specified on the screen by non-commutative geometry.

Entanglement of information implies that every distinct form of information that appears in the observer's world through the projection of images from the observer's holographic screen to its central point of view is inherently related to every other distinct form of information. Entangled bits of information naturally tend to align over an animated sequence of holographic projections, and that alignment of information gives rise to the coherent organization of information. Coherence can even be seen on a piece of holographic film as an interference pattern.

This tendency for entangled bits of information to align or bind together is typical of quantum entanglement, like entangled spin variables that tend to align. This tendency for entangled spin variables to align over a sequence of quantum state reductions is demonstrated in a spin network. A holographic screen has that kind of underlying structure. This natural tendency for entangled bits of information to self-organize and form self-replicating distinct forms of information and for the development of inter-relationships between distinct forms is balanced out by the natural tendency for information to become disordered and entropy to increase as heat flows in a thermal gradient. The temporary and local organization of information into forms is possible in spite of the relentless tendency for entropy to globally increase and eventually disorganize all forms due to the possibility of entropy locally and temporarily decreasing while global entropy increases.

This local and temporary decrease in entropy is possible due to the addition of organizing potential energy to a form while disorganizing random kinetic energy or heat is radiated away from the form into the global environment. We call this addition of organizing potential energy to a form the process of forms eating other forms. The necessity for a life-form to add potential energy to itself by eating other life-forms is a necessary condition for the temporary organization of all life-forms. Life-forms can only survive as self-replicating forms if they eat other life-forms

and avoid being eaten by other life-forms. This kind of energetic expression by a life-form is what we call an emotional expression, as in the expression of fear and desire, which is necessary for survival of life-forms. Even plants have to eat photons through the process of photosynthesis. The organization and disorganization of the forms of all objects and their inter-relationships are always in a balanced state of interplay in a holographic world.

## **The Potentiality of the Quantum State and the Eternal Now**

Quantum theory tells us there is no such thing as determinism, only potentiality. Everything in the universe, including the universe itself, only exists in a state of potentiality until observed, at which moment it comes into an actual state of existence. This actual state of existence only lasts for the moment of observation, which can be called the *eternal now*. The holographic principle tells us the observer is only a presence of consciousness at a point of view in empty space that centrally arises in relation to a surrounding holographic screen or bounding surface of space that encodes all the bits of information that specify the configuration state of whatever is observed in that bounded space. Until the moment at which the observation is made, the state of anything is described by a quantum state of potentiality that sums over all possible ways bits of information can be encoded on the holographic screen. Only at the moment of observation is an actual configuration state is chosen from the quantum state, which is what is actually observed.

Quantum entanglement always comes into effect since all the bits of information encoded on the screen are entangled, typically as the  $n$  entangled eigenvalues of an  $SU(n)$  matrix. The classic experiment that confirms potentiality as the mechanism of reality rather than determinism is the separation of two entangled spin variables. If a spin 0 particle randomly decays into two spin  $\frac{1}{2}$  particles, and the two particles separate from each other, the measurement of the spin state of one particle instantaneously determines the measurement of the spin state of the other particle, even if they've become separated to opposite sides of the observable universe. The spin state of each particle is specified by a quantum state of potentiality that sums over equal proportions of spin up and spin down states. Due to conservation of spin angular momentum, if one particle is measured to be spin up, the other particle can only be measured to be spin down. Einstein referred to this state of affairs as spooky action at a distance, and proposed that determinism, not potentiality, was actually in effect at all times and the particles had an actual spin state even when unmeasured. The test of Bell's theorem disproves Einstein's deterministic point of view as it proves that potentiality is in effect at all times. Potentiality wins the day every time it is tested.

The quantum state of potentiality not only includes the potentiality for the form of all possible things the observer can observe in its world, but also the potentiality for all possible ways in which energy can flow through the observer's world and animate things in that world. Not only do the form of things come into an actual state of existence when observed, but the flow of energy comes into an actual state of existence when observed. To be observed, the observer must be present to make the observation, which means the observer must focus its attention on

whatever is observed for the observed thing or the observed flow of energy to come into an actual state of existence. If the observer is not present to make the observation, then neither the observed thing nor the observed flow of energy can come in an actual state of existence. Instead, both the form of things and the flow of energy remain in an unobserved state of potentiality.

This is why Einstein could never accept quantum theory, since he felt things actually existed even when they're not observed. Einstein famously stated that "God does not play dice with the universe", but the experimental evidence is God does play dice with the universe. Everything, including the flow of energy that animates all things, only exists in an unobserved state of potentiality until observed, at which moment both the observed things and the animating flow of energy through things come into an actual state of existence. The observer must be present at that moment of observation to make the observation. The present moment is always an *eternal now* for which the observer must be present.

Niels Bohr described this strange state of affairs as "Anyone not shocked by quantum theory has not yet understood it". Richard Feynman liked to say "Nobody really understands quantum theory". The idea that things only have actual existence when the observer observes them is a radical idea, but all the experimental data supports it. Until observed, things only have potential existence. All measurements of the double slit experiment and tests of Bell's theorem with the measurement of the spin states of entangled particles that have become separated confirm this strange state of affairs. Einstein argued the particles must have definite spin states even when unmeasured, but the experimental evidence is they don't. Their spin states only become definite when measured. If the spin states of separated particles are entangled, measurement of the spin state of one particle is equivalent to measurement of the spin state of the other particle, no matter how far apart they separate. Einstein called this effect "spooky action at a distance".

## **The Quantum State of the Observer's World, the Observer's World-line and the Observer's Decision Point**

The observer's holographic screen encodes bits of information as a quantum state of potentiality, which is a direct consequence of non-commutative geometry, and so with every observation a choice must be made about what to observe. In quantum theory this choice is called a quantum state reduction that reduces the screen's quantum state of potentiality to an observable state of actuality. The quantum state is formulated as a sum over all possible observable states, and with each observation a choice must be made about what to observe. In quantum theory this choice is understood as a decision point where the observer chooses to follow an actual path through the information configuration space, where the quantum state of potentiality can also always be formulated as a sum over all possible paths in the information configuration space.

The holographic principle tells us each observer has its own world of animated observable images projected from its own holographic screen that arises on an observer-dependent event

horizon in the observer's accelerated frame of reference, within which the observer appears to follow a world-line through its projected and animated space-time geometry. Like the animation of the frames of a movie on a computer screen, the space-time geometry of the observer's world is projected to the observer's point of view in a screen output and is animated over a sequence of screen outputs that are ordered in the flow of energy. Each decision point on the observer's world-line is a choice about what to observe in its world and which path to follow through its world, which the observer makes with its focus of attention on things in its world. Different choices give rise to following a different world-line, which from the observer's point of view is an alternative timeline that gives rise to an alternative world. That is how relativity and quantum theory are unified in terms of the many world interpretation, which naturally arises with the holographic principle and an observer-dependent holographic screen that defines its world.

What we call a law of physics is not really a law at all but more like a probabilistic guideline. The laws of physics like gravity are all expressed in a classical sense as a principle of least action, but least action only represents the path of least action in the quantum state of potentiality, which is like the shortest distance between two points in the information configuration space. The quantum state can always be formulated as a sum over all possible paths in the information configuration space. The path of least action or classical path is only the most likely path in the sense of quantum probability, but is only valid if the choices that reduce the quantum state are made in an unbiased way. The quantum state is like a probability distribution measured by observations. Only unbiased observations give accurate measurements. If bias arises in the way choices are made, then all bets are off and the laws of physics lose their predictability. If bias arises in the way choices are made, there isn't even the predictability of a crap shoot. The dice are loaded. Events that apparently violate the laws of physics, like walking on water, are possible when sufficient bias arises in the way choices are made to create actions that significantly deviate from the path of least action. As Morpheus tells Neo in the Matrix, this is like bending the law of gravity, which relativity theory tells us is the bending of space.

## **Free Will versus Determinism**

What about free will versus determinism? Quantum theory tells us that determinism is not a valid concept, since every observable thing only exists in a state of potentiality until observed, and only exists in a state of actuality at the moment of observation. The actual existence of anything is dependent on an observer observing it, but that state of actual existence only lasts for a moment called now, and the observer must be present now to observe it. The holographic principle tells us the observer's world is always defined by the way bits of information are encoded on the observer's holographic screen, which is the bounding surface of space that surrounds the observer's central point of view. The quantum state of the observer's world is a sum over all possible configuration states of information that can be encoded on the screen, which is characterized by an interference pattern. Only at the moment of observation is the quantum state of the observer's world reduced to an actual configuration state of information.

Although determinism is not valid, there is a normal flow of things through the observer's world that naturally arises as all things tend to follow the path of least action, which is like the shortest distance between two points in the information configuration space, as long as the choices that reduce the quantum state are made in an unbiased way. The possibility of free will arises if the observer can choose what it observes in its world with its focus of attention on things in its world, but only if those choices are made in a biased way that deviates from the path of least action and the normal flow of things. The observer's bias in observation is always an interference with the normal flow of things that naturally arises with unbiased observations.

#### **Fourth Principle: The Observer's Focus of Attention is the Nature of Choice**

The big question is: Who chooses? Who makes the choices? The only possible answer is only the observer can choose what it observes in its world and which path it follows through its world with its focus of attention on its world. When its focus of attention is redirected, different choices are made. The observer always makes its choices at a decision point on its world-line, but in reality the observer goes nowhere. The observer only appears to follow a world-line through its projected and animated space-time geometry, which is projected from its holographic screen in a screen output and is animated over a sequence of screen outputs, just like the projection and animation of a movie from a screen to the point of view of the observer outside the screen. In reality, the observer is only watching the movie. The observer is always present at the central point of view of its world, which is always a point of singularity in empty space.

Free-will or choice is a consequence of the observer's focus of attention on its world. The observer's world only exists in a state of potentiality until observed, at which moment it comes into an actual state of existence. The moment of observation is always now. Things only actually exist as they're observed now. The observer must be present now. Being present now requires the observer to focus its attention on its world. The observer's focus of attention can be understood as its own light of consciousness that projects images of its world from its holographic screen back to its central point of view, like the light of a movie projector is required to project the images of a movie from a movie screen to the point of view of an observer out in the audience.

The movie images are naturally animated in the flow of energy, and the nature of the movie's film is the way bits of information are encoded on the observer's holographic screen, just like when a movie is displayed on a computer screen. There is always a normal flow of things that arises as things tend to follow the path of least action, which is like the shortest distance between two points in the information configuration space of the observer's holographic screen. The expression of personal choice always expresses an emotional bias, which interferes with the normal flow of things through the observer's world. The absolute irony of this situation is that the expression of personal choice or free-will is what makes the observer feel self-limited to the emotionally animated form of a person it observes in its world and creates the emotional

bondage of the observer emotionally identifying itself with the emotionally animated form of that person. In the Allegory of the Cave, Plato referred to such a self-identified observer as a prisoner.

## **The Light of Consciousness and the Life-Force**

The consciousness of the observer is the true nature of what one is, which can be called *I Am*. The observer has its own sense of being present in the sense of presence. The holographic principle tells us that everything the observer observes in its world is no more real than the images of a virtual reality, like the animated images of a movie projected from a screen to the observer's central point of view out in the audience of empty space. This concept of observation implies another aspect of consciousness that can be called the light of consciousness, which is necessary to project images from the observer's screen back to itself like the focused light of a movie projector that projects the images of a movie from a screen to an observer's point of view out in the audience. The observer's consciousness has both an outgoing projecting aspect and an incoming perceiving aspect. The observer's light of consciousness is necessary to project images from the screen back to itself, which is another aspect of the observer's consciousness that arises along with the observer's own observing consciousness that perceives those projected images.

The observer's light of consciousness can be understood as the observer's focus of attention on things, since its light of consciousness must become focused on things in order to project images of things back to itself. The light of consciousness can also be understood as the life-force, since the flow of energy through the observer's world can only flow if the observer is present to observe it. Both the form of things and the flow of energy that animates things can only come into an actual state of existence if the observer is present to observe them, and being present requires the observer to focus its attention on its world. Until observed, both the form of things and the flow of energy that animates things only exist in an unobserved state of potentiality.

The observer's light of consciousness is what is creating and destroying the appearance of its world from the perspective of its own point of view. As the observer focuses its attention on its world, it directs or shines the light of its consciousness on its world and illuminates its world, which then appears to come into existence. As the observer withdraws the focus of its attention away from its world, it no longer illuminates its world, which disappears from existence.

This kind of explanation for the nature of consciousness may be difficult to accept, but everyone experiences it every night when one falls into a deep sleep. One doesn't become unconscious in deep sleep. One's consciousness becomes aware of nothing. One no longer illuminates one's world when one withdraws one's focus of attention away from that world. When one is no longer present to observe one's world, that world disappears from existence. One's world may disappear from existence, but one cannot stop existing. One continues to exist as consciousness even when

one observes nothing. One's existence continues as nothingness. This way of describing things is not exactly right. One remains as nothingness, which is the nature of one's underlying reality.

## **Appearance and Reality**

The holographic principle is telling us that only consciousness is really real with its own inherent independent existence. Everything else only has a virtual kind of existence, like the images of a virtual reality projected from a computer screen. Everything else is dependent on consciousness for coming into its virtual existence. Virtual means things are forms of information, composed of bits of information, and their observation is like the projection of images from a screen to the point of view outside the screen where perceiving consciousness exists. To say everything is virtual is to say it is all imaginary. Only consciousness has an independent or ultimate existence and is ultimately real, but that ultimate reality is nothing observable. Consciousness itself as the ultimate subjective nature of reality cannot be any observable object it can observe within its field of view. Defining ultimate reality as invariant for all observers means that it can be nothing observable. Nothing observable is ultimately real, but that is what consciousness is.

Observers at different points of view observe different things. For example, when one falls into a deep sleep or a coma, one's world disappears from one's own point of view, but from the point of view of another observer, one's body is still in bed. Which observer's point of view is correct? The answer is given by the principle of equivalence. Different observers in different frames of reference observe different things, but neither point of view is more or less valid than any other point of view. The observer in a state of deep sleep observes nothing, which is just as valid an observation as observing a world. Ultimately, one observes nothing.

The holographic principle in the context of dark energy tells us the observer's world only appears to come into existence because dark energy is expended. That's how the observer's world is created. That's how the observer's world appears to come into existence as its cosmic horizon acts as a holographic screen. Without dark energy, the observer has no world. What remains is the true vacuum state with zero dark energy, which undergoes no expansion and has no horizons. It is only describable as an infinite, unbounded, undivided, unchanging empty background space with the potentiality to expand. The true vacuum state with zero dark energy is not a state that arises from some other state, but is the underlying reality from which all other states arise through the expression of a non-zero value of dark energy. The true vacuum state of nothingness that remains with zero dark energy is the only state that is the same for all observers. If ultimate reality is defined as invariant for all observers, then nothing observable can ultimately be real.

## **The Mind-Body Problem and the Holographic Nature of Perception**

The mind-body problem is only solvable if the problem of the ultimate nature of reality is solved first. As long as we take the physical universe with its matter, energy, elementary particles and



space-time geometry as the ultimate nature of reality, the mind-body problem cannot be solved. The solution becomes quite straightforward once the holographic principle in the context of dark energy is accepted and the physical universe and everything in it is understood as a holographic projection from a holographic screen. The problem of ultimate reality then comes down to what gives rise to or creates the holographic screen in the first place and what is responsible for the holographic projection of images. Since the holographic projection of images of everything in the physical universe can only be projected from a cosmic horizon that arises with the expression of dark energy and the accelerated expansion of space, and is always projected to the central point of view of an observer in an accelerated frame of reference, the only possible solution is the ultimate nature of reality can only be consciousness itself, where consciousness in its primordial or ultimate state is understood as an empty space of potentiality, which is like an empty background space with the potential to give rise to the accelerated expansion of space. In this sense, the observer's mind is a holographic screen that projects images of the observer's world to the observer's central point of view, and the observer's body is only a projected image.

The holographic nature of perception tells us that everything appears within consciousness. Everything appears within the point of view of the consciousness of an observer as observable images of all things are projected from a observation-limiting holographic screen to the central point of view of the observer. The apparent existence of all things only appears to come into existence within consciousness. Nothing can exist outside of consciousness. The irony is that when one becomes enlightened, one knows oneself to exist as that nothingness.

The radical nature of understanding the mind as a holographic screen cannot be overstated. The mind cannot arise from a brain inside the body of a person in the world because all of that stuff arises from the mind. Everything that is observed in the world is a holographic projection of the form of those things from a holographic screen to the point of view of an observer outside the screen, like the projection of movie images from a movie screen to the point of view of an observer out in the movie audience. Things do not really exist in three dimensional space. The information configuration states for the form of all things are encoded on the holographic screen in terms of bits of information. Anything that appears to exist in any three dimensional region of space is only a holographic projection from the bounding surface of that space to the point of view of the observer. Things apparently existing as distinct three dimensional objects in three dimensional space is a holographic illusion. Those things include the observer's body, brain and everything else that appears to exist in its world. The observer's mind does not arise from its brain. The observer's mind arises as a bounding surface of space, which is an event horizon that arises as energy is expended in the observer's accelerated frame of reference, and its mind acts as a holographic screen that encodes bits of information. The observer itself is nothing more than a presence of pure consciousness at a point of view in empty space.

An interesting observation of child psychologists is that prior to the development of a mentally-constructed body-based self-concept sometime during the second year of life, the infant sees the

world two dimensionally. Such an infant has no concept of movement in the third dimension, and cannot distinguish between larger or smaller objects and objects moved closer or farther away. It is as though all these objects are just images projected from a distant screen, where objects can grow or shrink in size but can't move closer or farther away in the third dimension. This observation seems like a direct confirmation of the holographic principle. Prior to the mental development of a body-based self-concept which requires the body-based memory of self, the observer's world is seen two dimensionally. Spiritual awakening in the sense of the ascension of consciousness can be understood as a reversion back to this more basic way of seeing things, where objects in space are actually seen to be images projected from a screen to the point of view of an observer out in empty space. One such object in space is one's own body. The mentally-constructed concept of a body-based self becomes absurd once one directly sees one's body is just another image projected from a screen to one's point of view in empty space.

### **The Nature of the Shadows Projected on the Wall of Plato's Cave**

If objects are really defined on a two dimensional holographic screen in terms of where all the fundamental bits of information are encoded, then where does the third dimension come from? An answer of sorts is given by the correspondence between conformal field theory and gravity in anti-de Sitter space. The perception of gravity in a bounded region of anti-de Sitter space is equivalent to a conformal field theory encoded on the bounding surface of that space. The perception of a third dimension arises from the Weyl symmetry of the conformal field theory. Conformal invariance is not a symmetry of space-time geometry the way Lorentz invariance is a symmetry of flat Minkowski space, but is a symmetry of the space-time metric that measures the curvature of space-time geometry. Conformal invariance allows anti-de Sitter space to become a holographic space, as whatever appears to happen in that space is a holographic projection from the bounding surface of that space where all the information for those happenings is encoded. The magic of non-commutative geometry is it extends this analysis into de Sitter space.

Weyl symmetry of the space-time metric is what gives rise to the perception of a third dimension. Conformal invariance is inherently a symmetry of the changing size of objects, which are forms of information. As objects in space appear to move toward or away from the point of view of an observer and appear to grow larger or smaller in size, the way bits of information are encoded for the objects on the bounding surface also grow larger or smaller in size in perfect proportions of three dimensional perception. It is as though a light is projecting a shadow of the object onto a screen, and that shadow is growing larger or smaller in size as the object moves toward or away from the observer. The holographic principle is telling us that the shadow is the nature of the perception of objects. Objects don't really exist in three dimensional space except as holographic illusions. Their shadows only exist in terms of information encoded on a two dimensional bounding surface. This way of describing the appearance of objects in space as shadows projected on a wall is eerily similar to how Plato described objects in the Allegory of the Cave.

## **The Big Bang Event Shatters the Undivided Unity of Pure Empty Space and Gives Rise to the First Concept: I Am**

The observer always experiences itself as a focal point of consciousness at the central point of view of its world with its own sense of being present as *I Am*. This conscious presence is always present at the central point of singularity of a cosmic horizon that arises when dark energy is expended and space appears to expand away from the observer at an accelerated rate. Dark energy is what puts the *bang* in the big bang event. This primordial explosive energy of the expansion of space is what creates the observer's world, but also shatters the undivided unity of the nothingness of pure empty space from which it arises. This expenditure of dark energy is the nature of a differentiation process that differentiates the observer's *I Am* consciousness from the undifferentiated consciousness of the void. This differentiation process is inherently connected to the construction of a holographic screen that projects all images of the observer's world.

In the sense that the observer's world is conceptual, *I Am* is the first concept. All concepts are forms of information animated in the flow energy. Everything the observer can observe in its world, which includes all mental concepts constructed in its mind, the dynamical nature of the space-time geometry of its world, every elementary particle in its world, and every other distinct thing the observer can observe, is a form of information animated in the flow of energy. Everything the observer can observe in its world is inherently conceptual. Before anything can be observed and appear to come into existence, the first concept, *I Am*, must come into existence.

When the flow of energy comes to an end, the observer is no longer in an accelerated frame of reference, the observer is no longer surrounded by an observation-limiting bounding surface of space that acts as a holographic screen, and so the holographic projection and animation of a bounded space-time geometry and all the observed forms of information that arise within that bounded geometry comes to an end. When energy is no longer expended and this acceleration comes to an end, the observer enters into a freely falling frame of reference. In an ultimate freely falling frame of reference, no energy is expended, no observation-limiting horizon arises, no holographic screen is constructed to define the observer's world, images of things in that world are no longer projected or animated, and so everything in the observer's world disappears from existence. When the observer's world disappears from existence, the observer is no longer present to observe its world. When the observer's world disappears from existence, the first concept, *I Am*, also goes out of existence, but consciousness does not stop existing. The observer's focal point of consciousness can only dissolve back into the undifferentiated consciousness of the void. This ultimate state of free fall is described as falling into the void. In this ultimate state of existence, only the nothingness of empty space remains.

With enlightenment, consciousness ascends to a higher level that's really a higher dimension, like an observer that knows it is only watching a movie projected from a screen to its point of view outside the screen and that its own light of consciousness is reflected back to itself as images are

projected from the screen. Enlightenment is a reunion with or dissolution into ultimate reality, like a drop of water that dissolves back into the ocean. This is not the same as a mystical experience, like a brief experience of cosmic consciousness, which is a transient or mystical way of perceiving the world. The key point is mystical experiences are experiences of the world, which is like a virtual reality, but enlightenment isn't. Enlightenment is an abiding experience where one experiences oneself as abiding non-dual awareness. It is about awakening to and knowing the truth of what one really is, which is the flip side of knowing what one isn't. One isn't one's character in the movie of the world one is watching.

## **The Hypnotic Spell of Personal Self-Identification**

Consciousness is impersonal. Consciousness does not arise from a person. It is exactly the other way around. The person is like the central character of a movie consciousness is watching. Only consciousness has its own independent existence. The apparent existence of a person in the world consciousness perceives depends on consciousness focusing its attention on the life of the person and the concept of being a person in that world. The apparent existence of the person depends on consciousness observing that apparent life in the emotional context of that self-concept, within which consciousness identifies itself with the form of the person since it really feels self-limited to that emotionally animated form as it perceives the animating flow of emotional energy through that form. That is the only reason consciousness identifies itself with the form of a person, focuses its attention on the life of the person and the concept of being that person, and feels compelled to defend the survival of that self-replicating form as though its existence depends on it, which perpetuates the hypnotic spell of personal self-identification. The only way to break this hypnotic spell is if consciousness withdraws its focus of attention away from the life of the person, away from the mental construction of the concept of being that person, and shifts the focus of its attention onto its own sense of being present as a presence of consciousness.

The ultimate or timeless nature of impersonal being is an empty space of potentiality. When this empty space of potentiality expresses its power with the expenditure of dark energy and the accelerated expansion of space, an observer's focal point of consciousness is differentiated from undifferentiated consciousness and a cosmic horizon arises that acts as a holographic screen that surrounds the observer at the central point of view. That's how the observer's world is created and the observer's individual being comes into being. This is the only way that an observer's world can be created and its individual being can come into being.

## **The Virtual Reality Dream-State**

One's world can be called a dream-state, but the better term is a virtual reality, as animated images of one's world are projected from one's holographic screen to one's central point of view in empty space, like animated images of a movie projected from a screen to the point of view of

an observer outside the screen. If we understand the world as a kind of virtual reality that arises from ultimate reality through the expression of energy or desire, the holographic principle tells us the world is no more real than animated images projected from a screen to the point of view of an observer. In the non-dual tradition of Advaita, the point of consciousness of the observer is the nature of Atmanic consciousness that gives rise to the light of consciousness that is needed to project images in addition to observing them. The focus of attention of consciousness, as in the focus of the light of consciousness, allows images to become animated in the flow of energy and also to some degree is able to direct them in the sense of directing the scenes of a movie.

Spiritual awakening is described as awakening from a dream. When one awakens, the dream one is dreaming disappears from one's point of view, and only one's true nature as the dreamer of the dream remains. This metaphor only makes sense if one understands that one's world and one's life in that world is like a dream, and one's true nature as the dreamer of the dream is not some observable thing one can observe in that world. One's true nature is one's spiritual being that can only be the true nature of one's consciousness that perceives everything in that world.

Awakening is not the same as body death. After body death, one's ego or mentally constructed self-concept can continue in one's world and apparently become reincarnated in a new body. One's new life continues under the sway of one's old ego. This is possible since one's mind is a limiting holographic screen surrounding the focal point of an observer, and all the projected images of one's world and mind, including all self-referential thoughts, are projected from the observer's screen to its central point of view. Since all the bits of information encoded on the observer's holographic screen are entangled, the projected images of self-referential thoughts can continue even after the projected image of a body appears to die. The reincarnated new body may suffer from the effects of the same old ego.

The observer's mind is not limited to a body. Like everything else the observer can observe in its world, its mind arises from a holographic screen as mental images are projected to its point of view. Even after body death entangled bits of information encoded on the observer's screen can relate everything in the observer's world to everything else, and so the observer's mentally constructed self-concept can become emotionally related to other things in its world without a body. Memory of the body can persist after body death. Ego can persist after body death like a ghostly cloud of memories, thoughts, fears and desires until reincarnated into a new body.

Awakening within the dream is often referred to as a born-again experience, which is a new life in which one remains conscious of oneself as the conscious spiritual presence of the observer and is free of the ego even as the dream appears to continue, like lucid dreaming. One's character in the movie of the world one is watching appears to be born and die, but the *I Am* consciousness watching the movie from its ascended point of view outside the movie is never born and never dies. The born-again experience is freedom from emotional bondage of emotionally identifying oneself with one's character in the movie. One dies to the flesh when one's self-identification

with one's character dies away. One is reborn of the spirit when one only knows oneself to be the *I Am* consciousness, which is one's spiritual identity while one is perceiving the movie.

Awakening from the dream is only possible through a process of ego-death in which the dream appears to come to an end and nothing remains except for the true nature of the dreamer. Everyone's spiritual being is a fragment of the One Being of the dreamer, which is watching the movie of the world from many different points of view and identifying itself with many different characters. When the movie of the world comes to an end and disappears from existence from a particular point of view, that presence of *I Am* consciousness can only return to, reunite itself with and become one with the one unlimited, undivided and formless one consciousness.

### **The Vicious Cycle of Emotional Attachment, Self-Defense and Personal Self-Identification**

The personal expression of the desire to live a life in the world consciousness perceives is what keeps consciousness emotionally identifying itself with the emotionally animated form of that person and emotionally attaching itself to things in that world. With every desire expressed, the form of the person is emotionally related to the form of some other thing, which is the emotional attachment, and that emotional relation makes consciousness feel self-limited to the emotionally animated form of the person as it perceives the flow of emotional energy through that form. That feeling of self-limitation is what keeps consciousness identifying itself with that personal form. This feeling can only arise through self-defensive emotional expressions of fear and desire, which are a necessary aspect of surviving in the self-replicating form of a person in the world.

Awakening is not a desire that can be satisfied, but is only possible if consciousness withdraws its focus of attention away from its world and withdraws its investment of animating emotional energy or desire from its world. As consciousness withdraws the focus of its attention, it severs its emotional attachment to things in that world and stops emotionally identifying itself with the form of a person. Awakening is really a deanimation and disappearance of the observer's world, which is the nature of ego-death that occurs when the expression of the desire to live a life comes to an end and the observer's world is no longer emotionally animated.

Self-identification can be called the original sin, but the better name is the original lie, just as the better name for One God is One Consciousness. The original lie is two-fold. First, a presence of consciousness falsely identifies itself with its character in the world it perceives like an observer out in an audience identifies itself with the central character of a movie it is watching. Second, that conscious presence feels compelled to defend the survival of the self-replicating form of its character with its emotionally biased focus of attention on the life of its character as though its existence depends on it. In reality, the true nature of the existence of a conscious presence depends on nothing it perceives in its world, and self-identification is only a perceived emotional state that arises due to the presence of consciousness feeling emotionally self-limited to the form

of its character as it perceives the flow of emotional energy that animates that self-replicating form. The lie of emotional self-identification is only perpetuated due to the emotionally biased focus of attention of the perceiver out in the audience that results in the expression of more biased self-defensive emotions. In reality, the whole imaginary thing is no more real than the animated images of a movie projected from a movie screen. The only thing that is ultimately real and truly has independent existence is the One Consciousness, which is really not-a-thing.

## **Steps in the Awakening Process: The Roles of Surrender, Detachment and Disillusionment**

The first step in the awakening process is always a state of disillusionment and despair. With disillusionment, one stops believing the lie of personal self-identity. One stops believing the story of a personal self that one's mind tells one about oneself. This story of a personal self is mentally constructed from false beliefs, and is really nothing more than a make-believe story. When one stops believing these false beliefs about oneself and sees them as a make-believe story, one loses interest in the story, one withdraws one's focus of attention away from this story, and so one withdraws one's investment of emotional energy in the story that is necessary to emotionally animate the story. Without that emotional energy, one's mind stops telling oneself this story and one's mind becomes quiet, which is a necessary step in awakening.

Surrender is another necessary step in the awakening process. With surrender, one gives up one's desires to control things in a personally biased self-defensive way. One stops interfering with the normal flow of things and stops creating an emotional disturbance. Instead, one puts one's trust in the normal flow of things to sort out what is for the best and allows things to play out in the normal way. The desire to defend oneself can only arise as one identifies oneself with a person, which is only possible as one interferes with the normal flow of things and creates an emotional disturbance that makes one feel self-limited to the form of a person and disconnected from all other things. The more one feels self-limited and identifies oneself with the form a person, the more one feels compelled to defend the survival of that form as though one's existence depends on it, which only creates more emotional disturbances in the flow of things that makes one feel self-limited and perpetuates the vicious cycle of personal self-identification and self-defense.

The only way to break this vicious cycle is through surrender. One gives up one's desire to defend oneself, puts one's trust in the normal flow of things to sort out what is best, and allows things to play out in the normal way. As the flow of animating emotional energy through the form of the person one perceives comes into alignment with the normal flow of energy through the world one perceives, one feels connected. Surrender is a necessary step in no longer feeling self-limited and no longer emotionally identifying oneself with the form of a person.

One surrenders when one sees the normal flow of things cannot really be controlled. All attempts to control things are acts of futility that lead to feelings of frustration. All things will eventually

resist any attempt to control them. One can no more control the normal flow of things than one can stop a tsunami by holding up one's hand. Ultimately, this sense of futility turns into a sense of falseness. One surrenders because one sees that one is not a thing that one is trying to defend.

The desire to control things is all about feeling powerful in an uncertain world where events are unpredictable and death is always near. Death is feared since it is equated with non-existence. Fear of non-existence underlies the desire to control things, which is a denial of death. The desire to control things is a way to deny death, but this is a denial of reality and the facts of life, and leads to unresolvable emotional conflicts. This fear of non-existence is all based on a lie. The lie is best explained with an analogy, which modern physics tells us is not really an analogy, but the god-damned truth of the matter. The consciousness of an observer out in a movie audience, which has its own independent existence, is watching the animated images of a movie projected from a movie screen, and is mistakenly identifying itself with the central character in the movie.

The character is afraid it will die and suffer non-existence. The character expresses this fear since that is how the survival of its self-replicating form is defended in the movie. That is the nature of the coherent organization of information in the movie that allows for creation and self-replication of that particular form. Since the observer out in the audience feels self-identified with the form of its character, the observer feels this fear of death and non-existence applies to its existence.

This fear of death and non-existence is really only a false belief the observer believes about itself, otherwise known as a delusion. In reality, the existence of the observer depends on nothing it observes in the movie. Due to its mistaken fear of non-existence, the observer tries to control what appears to happen in the movie, like a movie director. The observer has some limited ability to control what appears to happen in the movie as the observer focuses its attention on the life of its character in the movie, which is called free will. The observer focuses its attention on the life of its character in an emotionally biased way in an attempt to defend the survival of its character, which it does as though its existence depends on it. That is the lie. In reality, the observer is only a presence of consciousness out in the audience watching the movie and nothing that appears to happen in the movie ever threatens the true nature of the observer's existence.

Detachment or letting go is another necessary step in the awakening process. As one severs attachments to things and lets go, one lets things play out in the normal way and allows things to come and go in the normal flow of things. Severing an emotional attachment to something also requires the withdrawal of one's focus of attention away from that thing, since that is the only way one can withdraw one's investment of emotional energy that maintains the attachment. As one detaches oneself from things, in effect one steps outside of things and sees things with a sense of distance from them. One sees things from an ascended point of view, like an observer out in an audience watching the images of things displayed on a movie screen as the animated images are projected from the screen to one's point of view outside the screen.



One only lets go and detaches oneself from things when one gives up one's desire to control things. One sees that one's desire to attach oneself to things and control things is immature, like a baby that attaches itself to its mother and wants to control her behavior to force her to satisfy its desires. One sees the desire to control things is futile, since nothing can ever really be controlled. All things eventually resist any attempt to control them and the desire to control things is frustrated. Seeing the futility and immaturity of one's desire to attach oneself to things and control things is a necessary step in giving up one's desire to control things and becoming willing to sever the emotional attachment to things, which always feels like something dies inside.

Severing emotional attachments is like a process of death and dying. Before one can really let go, one has to grieve and accept the loss. Every step in the self-destructive process of severing emotional attachments is a loss, and that loss always feels like something dies inside. As long as there is more to lose, there are more steps to take. Every step is a loss, and nothing is gained. Everything is lost. Awakening only goes forward through the detachment process, but the spiritual freedom thus gained is only another word for nothing left to lose.

Another necessary step is seeing the falseness of all attachments, since one is never something that can attach itself to another thing. One is the perceiver of things and the perceiver of the emotional relationships between things that makes one feel like one is a thing as one feels self-limited to a thing and believes that one is a thing. One becomes willing to give up one's desire to control things and sever one's emotional attachments to things when one sees that the life one lives in one's world is an illusory make-believe life. That make-believe life is no more real than animated images projected from a screen to one's point of view out in the audience, like a virtual reality game one is playing or a movie one is watching. The only thing that can ever appear to die is one's character in the movie. The true nature of one's being cannot die. One's consciousness out in the audience does not die when the movie character appears to die. Seeing the illusory nature of that make-believe world and life is a necessary step in losing interest in living that make-believe life in that make-believe world and beginning the search for the truth of what one really is. Disillusionment is a necessary step in becoming disinterested in that illusory world and life and searching for the truth of one's being.

A necessary step in the awakening process is a state of disillusionment and despair that arises when the life one apparently lives in the world is seen to be nothing more than an illusion, like a movie one is watching. One is not one's character in the movie. One sees that one's apparent life in the world is a make-believe life. At the depth of this despair, grace arrives, and one realizes there is something real beyond the illusion of living a life in the world. There is something real about the observer's consciousness out in the audience that is watching the movie. Once this is realized, the awakening process can go forward in earnest to its ultimate conclusion.

The loss of interest in living that make-believe life is the only way the emotional bonds of attachment can become severed, and this state of emotional bondage can come to an end. Disillusionment leads one to become disinterested in living that make-believe life. With the withdrawal of one's focus of attention on that life and the withdrawal of emotional energy from that life, the emotional bonds are severed. Detachment allows one to see things with a sense of distance or from a higher level, which is really a higher dimension. Detachment ultimately leads to the disappearance of one's world. The withdrawal of one's focus of attention away from one's world is a way of switching off one's attention on one's world and thereby switching off the light of consciousness that is necessary for the projection and animation of all images of one's world, like switching off the light of a movie projector. As one withdraws one's focus of attention away from one's world, one turns off one's world like turning off a light switch.

The detachment process only goes forward in a state of surrender, but also requires focus and intent. One must express a clear intent and focus one's time, energy and attention on manifesting that intent. One must be serious about the process, and work toward one's goal in a serious way without distractions, diversions, conflicts or contradictions. The irony of the detachment process is that by severing emotional attachments the outcome of manifesting the desire to awaken is to become desireless, which is to say one must become willing to die at the level of ego-death.

The detachment process requires one's willingness to look within as one examines one's own mentally-constructed ego structure and as one deconstructs that ego structure. The awakening process only goes forward with the observer's willingness to look within and examine its ego structure. This mentally-constructed ego structure has to die away or become deconstructed before the observer can shift the focus of its attention on its own sense of being present as the conscious presence at the center of its world. This ego deconstruction process is really a withdrawal of animating emotional energy away from its world as the observer withdraws the focus of its attention away from its world and refocuses its attention on its own true nature.

The final step in the awakening process is always a shift in the focus of one's attention away from one's world and onto one's own sense of being present as a pure conscious presence that is only perceiving its world from its own point of view at the center of that world. As one's mind becomes quiet, one knows oneself as the silent observer of that world. As one surrenders, one knows oneself as the impartial observer of that world. As one detaches oneself from that world, one knows oneself as the ascended observer of that world. One knows oneself as one really is.

One knows oneself as *I Am*, where *I* is a pure presence of consciousness at the center of one's world, and *Am* is one's pure being. One knows oneself as being outside of time, since one is always present in the present moment, which is an *eternal now*. One knows oneself as being outside of space, since the space one perceives is projected from a screen that displays images of all things in one's world. One knows oneself as a self-emanating focal point of consciousness that emanates its own light of consciousness. One sees that it is one's own light of consciousness

that is creating and destroying the appearance of one's world from one's own point of view. As one focuses one's attention on and illuminates that world with the light of one's consciousness, that world appears to come into existence. As one withdraws the focus of one's attention away from and no longer illuminates that world, that world disappears from existence.

### **Looking Within: The Examination of the Self-Concept as a Way of Seeing Beyond and Past the Self-Concept**

The awakening process only goes forward with one's willingness to look within and examine one's own mentally constructed ego structure. One can only awaken if one deconstructs one's own ego structure, which is a self-destructive process. The true nature of what one really is can never be destroyed, only the false beliefs that one believes about oneself. One's true being is what one really is, and that being can never stop existing. The only things that can apparently cease to exist or stop having an apparent existence are the false beliefs one believes about oneself. In totality, those false beliefs constitute one's mentally constructed self-concept, but this concept of self constantly changes in a reactive way to the course of events in one's life, and is often contradictory and in conflict with itself. This mentally constructed self-concept or ego structure only consists of false beliefs about oneself constructed in one's mind that one believes about oneself, which is what one takes oneself to be in the world one perceives.

This mentally constructed self-concept is emotionally energized and body-based. One really feels self-limited to the form of one's body as one perceives the flow of emotional energy that relates one's body to the form of other things in the world that one perceives. The self-concept only has power over oneself if one believes it, but only the emotional energy inherent in its mental construction makes it believable when one feels self-limited to the emotionally animated form of one's body. The form of a self-image is inherently body-based. The feeling of self-limitation to the form of a self-image arises with all self-concept reinforcing emotional expressions.

There are two critically important emotional forces involved in creating the false beliefs inherent in the mental construction of a self-concept. The first force is emotional attachment and the second is self-defensive emotional expression. The force of emotional attachment can be understood as the tendency of the body to move toward something else, and the self-defensive force as the tendency of the body to move away from or against something else. These dynamic emotional tendencies are critically important for the biological survival of a body in the world, as the body must move toward whatever promotes its survival and away from or against whatever threatens its survival. The body moves toward whatever it desires and away from or against whatever it fears. These survival behaviors are all about the self-replication of the form of the body. In the starkest of biological terms, a body cannot survive or self-replicate its form unless it expresses desire and fear. In simplest biological terms, the body moves toward whatever it wants to eat, as eating promotes its survival, and moves away from or against whatever wants to eat it, as being eaten threatens its survival. Movement toward is an act of attachment, while movement

away or against is an act of self-defense. These movements are emotional expressions. By their very nature, emotional attachments are in conflict with self-defensive expressions.

Conflicts inevitably arise when the body wants to eat something that also wants to eat it, but that kind of conflict is the nature of bodies surviving in the world. We call this conflict the survival of the fittest body, which is an inevitable natural law that characterizes the survival behavior of biological bodies in the world. If a body doesn't express this kind of survival behavior in an efficient way, it won't survive in the world for very long. Another fitter body will eat it. Survival behavior must automatically begin with the conception or birth of a body, continue throughout the life-span of the body, and can only come to an end with the death of the body. If this kind of survival behavior does not occur, the body will not survive for very long. Without survival behavior, the body will die. The fear of death is a survival instinct, but this fear gives rise to the unresolvable emotional conflicts that are at the root of the mental construction of a self-concept.

## **Emotional Conflicts and the Denial of Death**

Emotional conflicts arise from the desire to control things. The problem is that things cannot really be controlled. The normal flow of things arises with the normal flow of energy through the entire world. An expression of energy limited in space and time can never control the entire flow of energy through the world. The desire to control things is inherently personal, and is limited in space and time. This limited expression of desire can never control the universal flow of things.

The desire to control things is all about feeling powerful in an uncertain world where events are unpredictable and death is always near. Death is feared since it is equated with non-existence. Fear of non-existence underlies the desire to control things, which is a denial of death. The desire to control things is a way to deny death, but this is a denial of reality and the facts of life, and leads to creation of unresolvable emotional conflicts. Conflicts inevitably arise because the desire to attach oneself to others comes into conflict with fear of others and the desire to defend oneself from others. In simplest biological terms, the desire to eat is in conflict with the fear of being eaten. These inherently unresolvable emotional conflicts can only arise from the desire to control things in an attempt to deny death, but are at the root of the mental construction of a self-concept.

The emotional forces of emotional attachment and self-defensive emotional expression are critically important not only for the survival of the form of a body in the world, but also for the mental construction of a self-concept, since these emotional forces are how the self-concept is emotionally energized. The self-concept is mentally constructed as thoughts. All self-concepts are mentally created as thoughts that inherently relate the form of a body-based self-image to the form of some other thing in the world. That relationship is always an emotional relationship. Unlike the emotional relationships that relate the form of a body to the form of some other thing in the world in the present moment event, the emotional relationships of the mentally constructed

self-concept tend to relate the body-based form of a self-image to the form of some other thing in the past or the future through the utilization of memory and anticipation of events.

Surrender and detachment are the only ways of resolving the inherently unresolvable emotional conflicts of the self-concept. When one surrenders, one gives up the desire to defend oneself and control things. When one detaches oneself from things, one severs the emotional attachment to things. Surrender and detachment are a way of becoming motionless at the level of one's mind. One's body is still in motion, but at the level of one's mind, the thoughts that move one toward things with the desire to attach oneself to things or that move one away from and against things with the desire to defend oneself from things come to an end. Without these thoughts, one's mind becomes silent and still. In that silence and stillness, one can see things more clearly.

Emotional conflicts are never resolved at the same level they are created. Emotional conflicts can only be resolved if one sees things more clearly from a higher level. As one surrenders and detaches oneself from things, one sees things more clearly and with a sense of distance, like a movie one is watching. One sees that one's character in the movie is afraid of death and non-existence, but when one detaches oneself from one's character, one no longer feels compelled to defend the survival of one's character as though one's existence depends on it. One becomes willing to just watch things play out in the normal way.

## **The Nature of Memory and Anticipation**

The dynamic mechanisms of memory and anticipation allow the mind to remember past events and anticipate future events. Although it seems like the images of things are held in memory, the more accurate description is the recalled images are recreated through the dynamic mechanism of memory every time memory is utilized. This is much like the kind of memory that is stored in a computer through the mechanism of information processing, except the mind is like a quantum computer that has the physical nature of a holographic screen, which not only encodes bits of information in the form of 1's and 0's, but also makes use of quantum entanglement to give rise to the coherent organization of information. The coherent organization of information inherent on a holographic screen not only allows for the spontaneous creation of images projected from the screen in the present moment event, but also allows for the reconstruction of images pertaining to past and future events, which ironically are projected from the screen in the present moment event to the perceiving one that is present now to perceive those events.

Memory and anticipation of events are possible because of the emotional forces that relate the projected images. The projected form of the image is like an object in space that moves over the course of time, and the emotional forces are like the dynamic energy of the object that causes the object to move from one position in space at one moment of time to another position in space at another moment of time. As long as the object appears to follow the path of least action, which is the normal path that arises with unbiased observations of the object, it becomes possible to

project the path of the object backwards in time, which is the nature of memory, and forwards in time, which is the nature of anticipation. This is exactly how we anticipate the trajectory of a rocket ship traveling to the moon or a comet traveling to the sun. We not only can project the trajectory forward in time, which is anticipation, but we also can project the trajectory backward in time, which is memory. Memory and anticipation of events are dynamic mechanisms that reconstruct images that were perceived in past events and anticipate the images that will be perceived in future events, but are always perceived in the present moment event.

The behavior of living organisms is conditioned or learned. Conditioned behavior typically occurs in a pattern of stimulus and response. Not only is the behavior of living organisms conditioned to occur in a pattern of stimulus and response, but the mentally constructed concepts or thoughts that arise in the mind are also conditioned. For the human life-form, the development of language or thought, including the development of a mentally constructed self-concept, develops primarily during the first three years of life. This mental development is highly conditioned and is learned in the emotional context of a society. A human child learns behavior from its caregivers. With this kind of conditioning, a certain kind of stimulus results in a fairly typical emotional response. There is really nothing more mysterious about how this occurs than understanding that ringing a bell results in a high-pitched vibration.

The best way to understand this kind of phenomena is with the concept of attractors and basins of attraction. An attractor is like a river that drains the landscape of a mountain range, and the basin of attraction is like the drainage basin. This is best understood with the dynamical concept of phase space. For the motion of a particle, phase space is defined by the particle's position in space at a moment of time and its velocity through space. The mind is much more complicated than a particle, but can be understood with the concept of a holographic screen encoding bits of information. The phase space for the holographic screen includes the configuration states for all the bits of information and the flow of energy that gives rise to the flow of information from one moment to the next moment. The information configuration space that includes the configuration states for all the bits of information at any moment of time and the flow of information from one moment to the next moment is the relevant mental phase space that determines how conditioned behavior occurs in a pattern of stimulus and response. The stimulus is the initial condition that falls somewhere within a basin of attraction, and the response is the nature of the attractor to which that initial condition flows, just like the rainwater that falls on a mountain range flows toward a river that drains the water.

Both attractors and basins of attraction are conditioned in the sense that the landscape of the mountain range develops through a process of learning. Both the nature of the initial conditions or stimuli that result in a certain kind of response and the nature of the resulting emotional response are learned or conditioned through the development of the mental landscape that results in conditioned behavior. In some sense, the nature of the conditioned mental landscape is the nature of memory. The mental landscape develops during critical periods of early childhood

development from some kind of critical phenomena that results in the coherent organization of information, and just like water freezes into ice, the mental landscape freezes out. This is only a classical or deterministic explanation that corresponds to the path of least action through the information configuration space. A more accurate explanation would also need to take into account the potentiality of all possible paths through the information configuration space.

Memory and anticipation of events are utilized in the mental construction of the self-concept to emotionally relate the body-based form of the self-image to the form of other things as those forms are recalled or anticipated for past or future events. When we fear or desire something, we are fearing or desiring something that we remember or anticipate. We don't need to use memory or anticipation for the emotional relationships that characterize present moment events, only for the past events we recall or the future events we anticipate. The dynamic mechanisms of memory and anticipation are the inherent nature of the mental construction of a self-concept that emotionally relates the form of a body-based self-image to the form of something else.

The irony is that the recalled or anticipated images of things that are emotionally related to the self-image with the mental construction of the self-concept are all reconstructed and projected in the present moment event, not in past or future events. When we utilize the mechanisms of memory and anticipation of events, we are not perceiving past or future events. We are only imagining events as we reconstruct what happened in past events or what might happen in future events. This reconstruction of events occurs in the mind through the dynamic mechanisms of memory and anticipation of events, but is always perceived in the present moment event.

It is not surprising that anticipation of future events is inaccurate, since no one can really predict the unpredictable future, but what might be surprising is that memory of past events is just as unreliable and inaccurate as anticipation of future events. Memory is notoriously unreliable and inaccurate. This is because both memory and anticipation of events are dynamic mechanisms that rely on emotional energy to make projections to past or future events from the present moment event. Mental images are not really held in memory. Personal memory is a form of mental imagination where mental images are reconstructed based on emotional projections to past events. If emotional bias enters into the expression of the emotions inherent in that emotional projection, the reconstructed images are contaminated by this emotional bias.

A person is inherently emotionally biased, since emotional bias, which is always personal bias, is an essential aspect of what makes one a person. A person only remembers what they want to remember, and they remember events the way they want to remember events, which is always under the influence of their emotional bias.

The mentally constructed concept of a personal self, as emotionally energized with expressions of fear and desire and emotionally constructed with the projection mechanisms of memory of past events and anticipation of future events, tells a story of personal self. This story of self is all about past and future events, as the concept of a personal self is emotionally projected to past or

future events. The irony is the perceiving one that perceives this story of self is always present in the present moment, which is an *eternal now*.

When the focus of attention of the perceiving one is focused on this story of a personal self, and its attention is focused on and emotionally concerned with this story of self with all the hopes and fears that can arise through its false belief that its existence depends on telling this story of self, the perceiving one is not aware of its own sense of being present in the *eternal now*. The perceiving one loses itself in this hypnotic spell of personal self-identification and not being present for its own presence.

## **Truth Destroys Illusion**

When one sees the illusory nature of the story of a personal self and stops believing it, one loses interest in it, withdraws the focus of one's attention away from it, and one no longer emotionally animates it. When one stops believing the story of self, one also stops telling the story. This is the only way the hypnotic spell that the story of self casts over oneself can come to an end and the perceiving one can become aware of its own sense of being present in the present moment.

These dynamic mechanisms of memory and anticipation are the inherent nature of the mentally constructed self-concept, as a body-based self-image is emotionally related to the image of some other thing in the world one perceives. Whatever we fear and desire as we think about things in a self-concerned way is not actually present in the present moment, but is a mental image we reconstruct out of memory and anticipation of events. As the mind uses the mental imagination of memory and anticipation of events to construct a self-concept, the self-image is related with expressions of fear and desire to something only imagined to exist in past or future events.

The irony of this state of mental imagination is the self-image need not necessarily become emotionally related to the image of some other thing in the world one perceives, but can become emotionally related to the form of the self-image as recalled from past events or as anticipated in future events. This emotional relationship of the self-image to a reconstructed past or future form of the self-image is what makes people go crazy, as they become afraid of themselves or come to hate themselves. This is the mentally constructed self-concept in emotional conflict with itself, which only occurs due to mental imagination that arises with memory and anticipation of events.

Although it appears as though the self-concept in conflict with itself becomes an object to itself, in reality, the mentally constructed self-concept is always an object to the one that is present now to perceive it. The perceiving one, in-and-of-itself, is never an object that it can perceive, but always remains as the unperceived perceiver of all objects, including its own mentally constructed self-concept. The perceiving one can only become aware of itself in the sense of its own presence and being present as the conscious presence at the center of its world.

## **The End of an Illusion**



The term ignorance is used to describe someone who does not know who one really is. There is both a passive and an active aspect of ignorance. The passive aspect is simply not knowing who one is. This is seen in spiritual seekers who appear to be lost, as they are in the process of giving up their personal identity but have not yet realized a spiritual identity. There is a sadness to their seeking that reflects the loss of something of great value, which is one's spiritual identity.

There is also an active and toxic aspect of ignorance seen in people who express the arrogance of believing that they know who they are. They believe themselves to be a person in the world, and act with all the arrogance of a selfish self-centered ego as they express their biased personality in the world. They act with both arrogance and stupidity, since their biased emotional expressions of fear and desire can only create more trouble for themselves as they interfere with the normal flow of things and create an emotional disturbance in the world.

This is where all the troubles that one creates for oneself begin. With the mental construction of emotionally energized self-referential thoughts that make use of memory and anticipation of events to recall past events and imagine future events, one identifies oneself with a mortal creature one perceives in one's world, and one begins to contemplate one's own mortality. One begins to fear one's own anticipated death and nonexistence. As Shakespeare expresses in Hamlet's soliloquy: "To be or not to be, that is the question", but a second question needs to be asked to resolve the inherent contradictions and inconsistencies of the self-concept implied by this first question: What does one take oneself to be?

Appearances are deceiving. One is only deceived by appearances if one believes false beliefs about oneself as one perceives those false beliefs. It all depends on what one takes oneself to be. What one really is does not change whether one is deceived and believes those false beliefs about oneself or not. When the false beliefs of a self-concept are removed from one's mental field of view, one is only undeceived. Only an illusion comes to an end.

## **Going to War with the Ego**

One can only awaken if one goes to war with one's own ego. The only thing that stands in the way and between one and one's awakening is one's own ego, which is the mentally constructed self-concept that one emotionally identifies oneself with as one perceives it. The ego is a false belief one believes about oneself, which tells one a false story about what one is. The awakening process is really just a process of removing this false self-image from one's mental field of view. One has to destroy one's own false self-image, which occurs through a process of ego-death.

In the Bhagavad-Gita, when the great warrior Arjuna was about to give the order to launch the great war, he saw that everyone he loved was on the other side, and he fell to the ground in a state of emotional paralysis rather than give that order. This is only a metaphor for one's war with one's ego. One does not have to go to war with the world or destroy anything in the world to awaken. Whatever appears to happen in the world is mostly irrelevant in terms of the

awakening process. What needs to be destroyed are one's emotional attachments to whatever one loves in one's world, which goes forward in a process of severing emotional attachments and surrender to divine will. Arjuna eventually got back up and gave the order to launch the great war. Again, this is a metaphor. Arjuna got back up because he saw that the world he was living in was a illusory make-believe world, that everything he loved in that world was a part of the illusion, and that he was only living a make-believe life. One can only go to war with one's ego in that state of mind.

One's ego is what makes one a prisoner of one's mind, living in a state of emotional bondage, as one identifies oneself with the emotionally animated form of one's ego, which one only does because one feels emotionally self-limited to that animated form. The more one emotionally identifies oneself with one's ego, the stronger the emotional bonds become, as one becomes emotionally biased to defend the survival of that form as though one's existence depends on it.

One has to clearly see the falseness and the illusory nature of this mental state of emotional bondage before the awakening process can begin and freedom from emotional bondage becomes a real possibility. Only then will one go to war with one's ego and vanquish it. One has to bring to an end the expression of the emotionally biased ego-reinforcing emotions of fear and desire that perpetuate the vicious cycle of this state of emotional bondage. The expression of fear and desire are not inherently bad things, since that is how a life-form lives in the world. Only when this emotional expression becomes emotionally biased can the ego raise its ugly head.

Fear arises with self-defensive emotions and desire arises with emotional attachments. One can only free oneself from the emotional bonds of one's ego through a process of severing emotional attachments and surrender to divine will. One does not really have to destroy one's ego as much as make it irrelevant. One only has to clearly see the ego as an illusion and lose interest in it. When one loses interest in its mental construction, one withdraws the focus of one's attention away from it, and thereby withdraws one's investment of emotional energy in its construction. Ego is not so much destroyed as it dies a natural death from lack of animating emotional energy.

When one goes to war with one's own ego, one uses concepts to attack and destroy one's emotionally energized self-concept. One's self-concept is what keeps one a prisoner of one's mind and in a state of emotional bondage. This state is like a hypnotic spell, as one focuses one's attention on one's self-concept as though one's existence depends on it. The only way to break this hypnotic spell is to remove the self-concept from one's mental field of view. One uses concepts to expose the contradictions and inconsistencies of the self-concept, thereby attacking and ultimately destroying it. In this attack on one's own self-concept, one ultimately comes to see it as an illusion and loses interest in it. Without one's focus of attention on it, the self-concept is no longer emotionally energized and disappears from one's mental field of view.

In the war against one's own ego, one has to become totally fed up with living the false life of a phony person in the world. One has to see for oneself that living this false life of a phony person

is only an illusion and lose interest in living it before one can withdraw one's focus of attention away from it and bring that phony life to an end. That's how emotional bias comes to an end.

The dark side of the human personality expresses fearful self-defensiveness and selfish emotional attachment, inevitably leading to anger and resentment whenever the personality is threatened. The desire for admiration or approval of others expresses the desire to control others. The expression of a narcissistic self-image expresses the desire for the approval of others, while the expression of a grandiose self-image expresses the desire to make others subservient and have power over others. All these emotional expressions are in defense of a personal self-image and express the desire to have power over and control others. These emotional forces only perpetuate the hypnotic spell of personal self-identification.

Ego is all about expressing the emotionally biased power of a person in the world. Ego is like a power-hungry tyrant that rules through divide-and-conquer. Expressing that emotional power inevitably leads to a state of emotional bondage, as one apparently becomes a person in the world expressing an emotionally biased personality. One emotionally identifies oneself with that person when one feels self-limited. Awakening really has nothing to do with the world. Awakening is only about freedom. One frees oneself from this state of emotional bondage in the world.

In the awakening process, ego is in resistance until the very end. The expression of personally biased self-defensive emotions by its character perpetuates the emotional self-identification of a presence of consciousness with its character, which reinforces the personal bias in its focus of attention and leads to the expression of more biased emotions by its character. A presence of consciousness will not give up the personal bias in its focus of attention until its character stops emotionally expressing that personal bias. This is the fundamental reason that surrender is required in the awakening process. Before a presence of consciousness can give up personal bias in the focus of its attention, its character must stop expressing the personal bias of self-defensive emotions, which can only happen with its surrender to divine will.

### **The Nature of the War: Ego-death as a Means to No-self**

Surrender is a necessary step in the awakening process in which a presence of consciousness no longer feels self-limited and no longer emotionally identifies itself with the form of its character. The awakening process only goes forward if a presence of consciousness gives up its emotional bias, surrenders to divine will, and no longer believes the false beliefs of a personal self-concept that arises as it identifies itself with its character. Surrender is the natural state of a presence of consciousness that knows the true nature of what it really is. Since the true nature of its existence depends on nothing it perceives in its world, its existence requires no self-defense.

Surrender and detachment are necessary for deconstruction of the self-concept. The mentally constructed self-concept arises in a dynamic relationship of mental imagination as a body-based

self-image is emotionally related to the image of some other thing. The emotional conflicts of the personality arise with mental construction of the self-concept. The self-concept can conceptually represent how a person comes into emotional conflict with another person, but it can also represent how it comes into conflict with itself, as the self-image at one moment of time comes into emotional conflict with the memory of the self-image from another moment of time. For example, the desire to feel connected to another can come into conflict with the fear of being controlled by another. Emotional conflicts cannot be resolved at the same level at which they are created. Their resolution always requires rising to a higher level of consciousness.

The conceptual representation of emotional conflicts in the mind is only a mentally constructed story of a personal self, like the self-referential narration of a movie by the central character. Resolving emotional conflicts is necessary for deconstruction of the self-concept, but the only possible resolution is through emotional detachment, which allows one to rise to a higher level of consciousness. Only the observer outside the movie screen, which is the mind's eye observing the movie, can become aware of the emotional conflicts inherent in mental construction of the self-concept. As the observer becomes aware of emotional conflicts, it sees them as immature, like a baby that wants to control its mother in order to force her to satisfy its desires. It sees them as futile, since nothing can really be controlled. It also sees them as false, since the observer can never be any mentally constructed self-concept it can observe. Only when the immaturity, futility and falseness of all self-concepts and emotional conflicts inherent in their construction is seen, will the observer become willing to give up its conflicted desires. The observer becomes willing to detach itself from things, and sees things from a higher level with a sense of distance.

With emotional detachment, there is willingness to let go, give up the desire to control things, and allow things to play out in the normal way without any desire to control things or interfere with the normal flow of things. A sense of trust develops as one sees that things tend to play out for the best if one does not interfere with the normal flow of things in an emotionally biased way. The desire to control things and defend oneself in a personally biased way can only create an emotional disturbance and make things worse. The observer's willingness to detach itself from things, let go and give up its desire to control things is its own growing-up process.

Emotional attachments make one feel self-limited and self-identified, and keep one imprisoned in a state of emotional bondage. This egoic state largely develops during the first three years of life. These events are critical for the mental construction of a body-based self-concept that begins to develop in the second year of life. Emotional attachments are necessary for early life survival as they attach the child to its caregivers, but the process of growing up and becoming independent and self-reliant can only go forward through the process of severing those attachments. The early life events that shaped and formed emotional attachments often are not consciously remembered, but the unresolved emotional conflicts of these events often replay themselves over and over again throughout life as they arise from the unconscious memory of these early events.

Unresolved emotions are often in conflict with each other, such as the desire to feel connected that comes into emotional conflict with the fear of being controlled. The only way one can move forward from this state of emotional bondage is to make unconscious memory conscious and fully examine it. Conscious examination of emotional attachments is what severs attachments and liberates one from this state of emotional bondage. One only severs emotional attachments if one sees them for what they really are and one moves beyond them. One detaches oneself and moves beyond them as one sees things with a sense of distance and one's consciousness ascends to a higher level. One sees things like a movie that one is watching and one knows oneself to be the conscious presence that is out in the audience only watching the movie.

The natural state of the pure awareness of a detached silent observer is immediate knowing that arises with direct seeing. The only things that can block this natural state of pure awareness are the mental distortions created in the observer's mind. These mental distortions typically take the form of self-concerned thoughts that are emotionally constructed whenever fear and desire are expressed as the observer focuses its attention on a form in an emotionally biased way and emotionally attaches itself to a form or identifies itself with a form. These mental distortions are emotionally conditioned and occur in a pattern of stimulus and response, but they only become learned in the emotional context of a society within which the observer's mind develops.

For a human mind, this process of emotional conditioning and learning largely develops during the first three years of life. This is the major period of mental development during which time language and a mentally constructed self-concept develop. Once these mental distortions develop, their mental functioning blocks the normal direct seeing and immediate knowing of the natural state of pure awareness. The only way that one can return to one's natural state of pure awareness is if one unlearns these mental distortions. One has to become unconditioned. The only way one can unlearn these mental distortions and become unconditioned is if one goes through a self-destructive process of deconstructing one's self-concept. This self-destructive process only goes forward by bringing to an end the expression of the personally biased emotions of fear and desire that emotionally energize these mental distortions, which requires the willingness to surrender to divine will and sever emotional attachments.

In the awakening process, surrender and disillusionment lead to emotional detachment, which is the letting go process that leads to ego-death. Whenever an emotional attachment is severed, it feels like something dies inside since part of the emotionally energized self-concept or ego dies away. The self-concept can only become mentally constructed when a self-image is emotionally related to the image of something else, and the emotional energy of that relationship arises with emotional attachments. One only feels emotional states as one perceives the flow of emotional energy through one's character that animates the behavior of one's character, and one only attributes these emotional states to oneself if one identifies oneself with one's character. This self-attribution of emotional states is all based on a lie. One is not one's character in the movie of the world one is watching, but only the consciousness out in the audience watching the movie.

One only emotionally reinforces these emotional states as one focuses one's attention on the life of one's character in the movie in emotionally biased ways, which makes one feel self-limited to the emotionally animated form of one's character as one perceives the flow of emotional energy through that form. This emotional reinforcement of emotional states with one's biased focus of attention reinforces the lie of one's self-identification with one's character. Once one becomes emotionally self-identified with one's character, one focuses one's attention on the life of one's character in an emotionally biased way as though one's existence depends on it, which perpetuates the lie of self-identification. Emotional bias in the focus of one's attention is at the heart of the emotional attachments that underlie emotional self-identification. Severing emotional attachments only becomes possible if this emotional bias comes to an end.

### **The Power of the Focus of Attention**

One can bring the lie of emotional self-identification to an end and stop emotionally reinforcing one's emotional self-identification with one's character at any moment that one withdraws one's focus of attention away from the life of one's character and thereby withdraws one's investment of animating emotional energy. In the awakening process one only needs to withdraw the focus of one's attention away from the life of one's character and shift the focus of one's attention onto one's own sense of being present as a presence of pure consciousness out in the audience.

Awakening is only a shift in the focus of attention of a presence of consciousness away from the world it observes and the life of its character in that world, and onto its own sense of being present as a conscious presence at the central point of view of its world. This shift in the focus of attention of consciousness requires a presence of consciousness to lose interest in whatever appears to happen in its world or to its character. This loss of interest in things is the role of disillusionment, as the presence of consciousness sees that all the mentally constructed and emotionally energized concepts it believes about itself are false beliefs. Since these false beliefs are all emotionally energized, which makes the presence of consciousness feel self-limited to the emotionally animated form of its character as it perceives the flow of emotional energy that animates the behaviors of its character, awakening requires the end of this emotional animation.

With surrender, this emotional animation becomes unbiased and is no longer directed in a personally biased way through emotional bias in the focus of attention of consciousness. With emotional detachment, that emotional animation finally comes to an end as the presence of consciousness withdraws its focus of attention away from the animation and thereby withdraws its investment of emotional energy in the animation. This deanimation process of ego-death is the only way a presence of consciousness can shift its focus of attention onto its own sense of being present. Ultimately, awakening leads one to the inexpressible experience of the undivided, unlimited, formless source of consciousness that is beyond any presence of consciousness.

Awakening in the sense of enlightenment is like awakening from a dream. When one awakens, the dream comes to an end and only the true nature of the dreamer remains. The hardest thing for everyone to accept is that the life one lives in the world is like a dream, and that to awaken, that life must come to an end. That life only arises in an energetic state with the expressed desire to live a life, and so one must become desireless in order to awaken. The desireless state is the only way one's world and life in that world can disappear from existence.

Only the observer's focus of attention on the expression of its desire to live a life in its world energizes the expression of that desire. The observer's willingness to give up the expression of that desire requires a shift in its focus of attention away from the expression of its desire to live a life in its world. The only other place the observer can focus its attention is on its own sense of being present as a focal point of consciousness, the singularity, at the center of its world.

The big question is: Why doesn't the observer shift its focus of attention away from its world and onto its own sense of being present at the center of its world?

### **The Search for the Grail is all about the Search, Not about Finding the Grail**

As long as one exists as a divided presence of consciousness that observes its own world from its own point of view, the only real power one has is one's focus of attention. If one focuses one's attention on the emotionally animated life of a person in that world and the mentally constructed and emotionally energized concept of being a person in that world, then one is wasting one's power to awaken to the true nature of one's being. This waste of time and energy is the meaning of the wasteland in the grail legend. The meaning of the grail is the true nature of one's being. One only discovers the grail if one withdraws one's focus of attention away from the life of the person in the world and the mentally constructed concept of being a person and shifts one's focus of attention onto one's own sense of being present as a pure presence of consciousness.

The grail legend is a metaphor for discovering the true nature of one's being. When one searches for the grail as a person in the world, one is wasting one's power to awaken to the true nature of one's being. That power is one's focus of attention, which one wastes as one focuses attention on the world. One only discovers the grail if one withdraws one's focus of attention away from one's life as a person in the world and shifts one's focus of attention onto the true nature of one's being.

The search for the grail is all about the search, and is never really about finding the grail. One can never really find the grail. One is the grail. One can only be what one really is. The grail is the true nature of one's being. Everything else that one takes oneself to be is delusional.

Living a life in the world is never about finding one's true self. Such a thing does not really exist. Living a life in the world is only about creating a false self. One is actually creating a false self through one's false belief in it, and that creation process is inherently emotional. Awakening

from delusion is only a process of giving up the desire to create this false self so that one can discover one's true being. This discovery can only be made when one is without a sense of self.

The only way one can awaken and know the true nature of what one really is, is to detach oneself from everything one has become emotionally attached to with the mental construction of a self-concept. When one withdraws one's focus of attention away from one's self-concept, one also withdraws one's investment of emotional energy in its mental construction. When one sees the illusory make-believe nature of one's self-concept and loses interest in its construction, one also severs the emotional bonds that reinforce it, which naturally occurs as one looks within and focuses one's attention on one's own sense of being present. One has to shift the focus of one's attention away from everything one perceives in one's world, away from one's own life in that world, and onto one's own sense of being present. One has to lose interest in one's world, lose interest in everything in that world, and lose interest in living a life in that world.

One only does this because one sees that one's life in one's world is an illusory make-believe life like a virtual reality game one is playing or a movie one is watching, and is no more real than animated images projected from a screen to one's point of view out in the audience. One has to become willing to bring that illusory life to an end before one can know the truth of one's own being. Losing interest in living that illusory life is a way of ending that life and becoming desireless. Life ends, but one doesn't die. The only thing that appears to die is one's animated character in the movie of the world one is watching. One's being cannot die. The consciousness of the observer out in the audience doesn't die when the movie character appears to die.

### **The Virtuous Cycle of Presence, Detachment & the Non-Identified Impartial Silent Observer**

The antidote to the vicious cycle of one identifying oneself with the form of a body that one perceives and defending the survival of that form as though one's existence depends on it is the virtuous cycle of focusing one's attention on one's own sense of being present and the ascension of one's consciousness to a higher level. This virtuous cycle can only go forward through a process of surrender and detachment. As one focuses one's attention on one's own sense of being present, one withdraws one's focus of attention away from the world of forms that one perceives. This happens naturally when one sees that world is an illusory make-believe world and one loses interest in it. As one withdraws one's focus of attention away from one's world, one withdraws one's investment of animating emotional energy in it, which is how one severs one's emotional attachments and no longer emotionally energizes and feels self-limited to the form of a person.

The more one detaches oneself, the more one is able to shift the focus of one's attention onto one's own sense of being present, and one's consciousness ascends to a higher level as one sees things with a sense of distance. In a state of detached silent observing of things, one also enters into a state of surrender as one allows things to come and go in the normal flow of things without



any desire to hold onto things, fight against or run away from things, control things, defend the form of things, or interfere with the normal flow of things. One's thoughts are also things that come and go, as they're only mental images projected from one's mental screen. In a state of detached silent observing of things one just watches things come and go according to their own nature in the normal flow of things, while one focuses one's attention on one's own sense of being present as an impartial silent observer of things. This is the natural state of being oneself.

Focusing one's attention on one's own sense of being present as a silent observer reinforces this state of detached silent observing in which one does nothing except observe the normal flow of things. If one is willing to be nothing, one doesn't have to do anything. Being is not the same as doing. One observes doing but one is never really a doer. One exists only as a silent observer of things. Things appear to happen in the normal flow of things, but one is none of those things. One can only feel like one is a thing when one feels self-limited to the form of a thing, but feelings of self-limitation come to an end as one becomes a detached silent observer of things.

As one focuses one's attention on the sense of being present, one becomes aware of one's being. The goal is to become aware of oneself as a silent observer of events without attachment to or identification with what appears to happen in those events. One knows oneself only as a detached silent observer, which is nothing more than a pure presence of consciousness that arises at a point of view, and simply observes the events without participating in them. Those events really have nothing more to do with oneself than images of a movie projected from a screen to one's point of view in the audience outside the screen. Doing still happens and things appear to happen in the normal flow of things, but those events are external to oneself and really have nothing to do with one's true nature. One simply watches events play out in an unbiased impartial way without participating in them. This state of detached silent observing is the natural state of being oneself.

As one continues to look within while one's ego structure dies away, one shifts the focus of one's attention onto one's own sense of being present as a pure presence of consciousness at the central point of view of the world one perceives. That is the only way one can ever reach the final destination of one's journey, which is to discover the true nature of one's being.

### **Redirecting the Life-Force on One's Self: Bringing the Light of Consciousness and Perceiving Consciousness into a Single Point of Consciousness**

One's focus of attention on things in the world one perceives is one's life-force that arises with one's light of consciousness that emanates from one's focal point of consciousness and is focused on whatever one perceives in one's world. Images of that world are reflected back to oneself from one's mental screen to one's point of view. One's light of consciousness is required to project images back to oneself. Although the normal flow of energy through one's world arises as a spontaneous expression of creativity and is not really under one's control, one's focus

of attention on things in that world is required to allow energy to flow through one's world and animate things in that world from the perspective of one's own point of view. To the degree that one can direct the events of that world, one is only interfering with the normal flow of things.

Like everything the observer can possibly observe in its world, the flow of energy through its world only exists in a state of potentiality until observed. At the moment of observation, the flow of energy comes into a state of actuality, but the observer must be present at that moment of observation. The flow of energy only comes into an actual state of existence if the observer focuses its attention on the observation, which requires the observer's light of consciousness to emanate from its focal point of consciousness and project images of its world from its screen back to its central point of view, like the light of a movie projector projects the images of a movie from a movie screen to the point of view of an observer out in the audience.

The images are animated in the flow of energy, but just like the observed images, the flow of energy only comes into an actual state of existence if observed. If the observer's focus of attention is not present to observe both the projected images and the animating flow of energy, then both the projection of images and the animation of images comes to an end. When the observer withdraws its focus of attention away from its world, in effect it also withdraws the energy of its life-force away from its world and brings the animation of its world to an end.

The flow of energy through the observer's world only comes into an actual state of existence when observed. If the observer withdraws its focus of attention away from its world, it also withdraws the expression of its life-force from its world. From the perspective of the observer's own point of view, its world disappears from existence when it withdraws its focus of attention away from its world, but life goes on from the perspective of other observers that focus their attention on different aspects of the world. The life of the observer's body goes on even when the observer is not present to observe its life, like when it falls into a state of deep sleep and is aware of nothing. The life of the body goes on since other observers are observing that life. Every distinct form in the universe has its own observer. All the observers are ultimately the same observer, but are observing things from the perspective of different points of view.

Body death only occurs when one permanently withdraws one's focus of attention and life-force away from the life of one's body in the world one observes. When one permanently withdraws one's attention and life-force away from that body, that particular body is no longer animated as a living body in the flow of energy. When one is reincarnated into a new body, one refocuses one's attention on the life of that new body. That refocusing of one's attention is really no different than waking up from a deep sleep. In the time interval that one was in a deep sleep, one's body changed, and it really isn't the same body when one awakens. Reincarnation is much the same, except it involves a much bigger change in one's body.

Enlightenment would not be possible unless the observer's own light of consciousness is what is illuminating the observer's world from the perspective of its own point of view as it focuses its

attention on its world. Whatever the observer observes in its world is only a reflection of its own light of consciousness, as images of its world are projected from its own mental screen to its own point of view and are perceived. If the observer shifts the focus of its attention away from its world and onto the source of the light of consciousness, the observer becomes enlightened.

In the awakening process, one withdraws one's focus of attention away from one's world and shifts the focus of one's attention onto one's own sense of being present as the observer at the central point of view of one's world. Only the conscious presence of the observer has its own inherent sense of being present, which is called *I Am*. In the awakening process, one is really withdrawing one's life-force energy away from one's world and shifting the focus of one's attention onto one's own focal point of observing consciousness. As one withdraws one's focus of attention away from one's world, one also withdraws one's investment of animating emotional energy, which is one's life-force. In focusing one's light of consciousness on one's focal point of observing consciousness and shifting the focus of one's attention on one's own sense of being, one brings oneself into focus as being a single point of self-emanating consciousness.

Once one knows oneself to be a self-emanating focal point of consciousness at the central point of singularity of one's world, one directly sees that it is one's own light of consciousness that is emanating from that focal point as one's focuses one's attention on one's world and creates or destroys the appearance of that world from the perspective of one's own point of view. One's world only appears to come into existence or be created from one's point of view as one focuses one's attention on it and shines the light of one's consciousness on it. As one withdraws one's focus of attention away from it and no longer shines the light of one's consciousness on it, that world disappears from existence or appears to be destroyed from one's own point of view.

## **Spiritual Awakening to One's Self is a State of Waking Sleep**

Awakening is described as a state of waking-sleep. As one falls into a deep sleep, one withdraws one's focus of attention away from one's world, which disappears from existence from the perspective of one's point of view, and one is aware of nothing. As one awakens to one's Self, one withdraws one's focus of attention away from one's world, which disappears from existence from the perspective of one's own point of view, but one also shifts the focus of one's attention onto one's sense of being present or beingness, and becomes aware of oneself as a pure presence of self-emanating consciousness at the central point of singularity of one's world.

In the awakening process, one looks within and focuses one's attention on one's own sense of being present as a conscious presence at the central point of singularity of one's world. In this process, one is no longer under the hypnotic spell of focusing one's attention on one's mentally constructed self-concept as though one's existence depends on it. One no longer allows one's focus of attention to wander around and become distracted by all the shiny objects in one's world. One's attention is focused on one's own sense of being present like a laser beam.

One shifts the focus of one's attention onto one's own focal point of observing consciousness and brings them into a unified state of being one consciousness. One ultimately goes beyond being this unified state of one consciousness and becomes one with the source of consciousness, which is the ultimate state of reunion. This ultimate state of reunion is beyond the observing consciousness of an observer and its observable world. The ultimate state of being is called non-dual awareness, which in some inexpressible sense is being nothing.

The only truth one can ever know about oneself is that one exists, but as what does one exist? As long as one perceives one's own world, one can only exist as the silent observer of one's world. The silent witness is the Atmanic consciousness at the center of one's world. To awaken to one's true nature, one must come to know oneself as being that pure presence of consciousness at the center of one's world. When one focuses one's attention on one's own sense of being present, one knows oneself as being the silent observer. One knows oneself as being the awareness itself. One brings one's attention onto one's awareness and sees that one's attention and awareness are one consciousness. One does this by withdrawing one's attention away from one's world.

The only thing that stands between one knowing oneself as being the awareness itself and stands in the way of one focusing one's attention on one's awareness and seeing them as being one, is one's own ego, which are the false beliefs one believes about oneself that one is a person in the world one perceives. When one focuses one's attention on one's own ego and on false beliefs one believes about oneself that one is an embodied person in the world with a body that needs to be defended as though one's existence depends on body survival, one makes oneself a prisoner of one's mind as one identifies oneself with this false self-concept of being an embodied person.

The false self-concept is nothing more than false beliefs that one believes about oneself. To stop believing these false beliefs, one has to stop emotionally constructing them in one's mind, which one can only do if one withdraws one's focus of attention away from them. One can only remove them from one's mental field of view if one sees them as illusions and loses interest in them, and if one stops focusing one's attention on them and stops emotionally energizing them. This happens naturally as one shifts the focus of one's attention on one's own sense of being present and knows oneself as being the silent observer or the conscious presence itself. One brings the focus of one's attention onto one's own awareness and sees them as being one consciousness. Through the single-pointedness of one's focus of attention, one brings one's attention and awareness into a single point of consciousness. One brings oneself into a point of singularity.

## **Kill the Buddha**

"If you meet the Buddha on the road, kill him." This is another version of the Zen saying "When you reach the top, keep climbing". The Buddha is the highest possible sense of self, which is the highest level of consciousness one can have while one still perceives one's world. This is the ascended nature of Atmanic consciousness present at the central point of singularity of one's

world. In the journey to awakening, this highest level of self is as far as one can go while one still has a sense of self. As long as one has a sense of self, one is seeing two, while in reality, there is only one. As long as one has a sense of self, one also has a sense of other.

To go further into the source of consciousness, one must become selfless. The source is pure oneness, and has no sense of self. To go further, one must kill the Buddha. One must kill one's own sense of self before one can experience this ultimate state of No-self.

The highest sense of self is not the final destination of the journey to awakening. There is still further. One is not done with one's journey until one is without a sense of self, no matter how high and glorified that self might be. The goal of the journey is not to become a high and mighty self, but to become selfless. One is only done when one is truly selfless.

The sense of conscious presence is itself the doorway through which one ultimately passes that allows one to return to and reunite oneself with the source of one's consciousness. In this ultimate state of reunion, the conscious presence of the observer and the source of consciousness become one. The undivided awareness of the source is aware of the conscious presence of the observer even as it perceives its own world. One not only knows oneself to be the conscious presence of the observer. One also knows oneself to be the source of consciousness. One knows oneself to be the nothingness of the source. One knows the truth of being nothing. The only truth one can ever know about oneself is that one exists, but ultimately one exists as nothingness.

## **Falling into the Void and the Enigma of Enlightenment**

Once the observer brings itself into focus by focusing its attention on its own sense of beingness, it comes to know itself as the self-emanating source of the light of consciousness that is reflected off the screen of its mind and is projected back to itself as all the images of its world that it perceives. The projected images are seen from an ascended point of view, which is the highest possible level of consciousness. This is the highest level of self the observer can ever know itself to be, but this is not the final destination of the journey to awakening. There is still further.

It is the going further part of the journey that one can never wrap one's conceptual mind around. The final destination of the journey is a place without concepts. The journey is taken by a self within a time-bound world, but the final destination is outside of time and has no self.

When one focuses one's attention on one's own sense of beingness, one brings oneself to the highest level of self, which is the highest level of consciousness present at the central point of singularity of one's world. One brings oneself to the edge of the abyss that separates the apparent existence of one's world when one is present to perceive it from the disappearance of that world when one is no longer present to perceive it. The going further part of the journey is the crossing over of the edge of the abyss as the abyss opens, which is described as falling into the void.

## **The Gateless Gate and the Doors of Perception**

This crossing over to the other side is what the gateless gate paradox and the doors of perception riddle are alluding to. To cross over, the doors of perception must be cleansed of the sense of self. One can only cross over without a sense of self. In a very real sense, the gate is the highest sense of self and highest level of consciousness present at the singularity at the center of one's world, which one can only pass through when one becomes selfless.

Nisargadatta says "I am is the door. Stay with it until it opens. It is always open, but you are not at it". Being present at the doorway requires one to focus one's attention on one's own sense of beingness. When one cleanses oneself of the sense of self, one brings oneself to the edge of the abyss. One crosses over to the other side when the abyss opens and one falls into it. One knows the true nature of one's being when one dissolves into the abyss like a drop of water dissolves into the ocean. The *I Am* consciousness dissolves into unlimited and undivided consciousness.

The final destination of the journey to awakening is one's direct experience of the true nature of one's being, which is what one is. This unlimited and undivided nature of consciousness can only be referred to in the nonconceptual sense of negation as nothingness, emptiness or No-self.

Once the observer brings itself into focus and knows itself to be nothing more than a presence of consciousness at the central point of view of its world, it brings itself right to the edge of the abyss that separates the existence of its world from the void and the non-existence of its world. The observer brings itself right to the edge of the abyss that separates being present for its world from the disappearance of its world and not being present. At that point, the observer can freely fall into the void and reunite itself with the undivided and unlimited consciousness of the void.

## **Consciousness Creates Reality as the Dreamer that Dreams a Dream that It Dreams about Its Self**

Consciousness creates reality, but creation consciousness is not limited to the individual consciousness of an observer. It is the unlimited and undifferentiated consciousness of the void. This ultimate state of existence is like an empty space of potentiality that can only be described in negative terms as uncreated, undivided, limitless, formless, selfless, nothingness and emptiness. The world of forms that it creates, energetically animates, and observes from the limited perspective of a point of view, is inherently dualistic and is characterized by the sense of being an individual self. This world of forms is a lesser form of reality, like a virtual reality of animated images projected from a screen to the point of view of an observer outside the screen.

The void is not only the source of the observer's world, but is also the source of the observer's consciousness. This is inherently a non-dual description of reality. Everything in a dreamer's dream along with the dreamer's dreaming consciousness that observes the dream must arise from the true nature of the dreamer. This includes the dreamer's own sense of self. The sense of self is

always a part of the dream. When the dream comes to an end, so too does this sense of self. Although there are many dreams and many points of view from which to observe those dreams, ultimately there is only one uncreated dreamer.

### **Atman-Brahman: Limited Atmanic & Unlimited Brahmanic Consciousness**

The holographic principle in the context of dark energy is telling us there are three levels of reality. The ultimate level, beyond all, is Brahman: the unlimited consciousness of the void; the infinite, undivided, unitary nothingness that is the one source from which all comes into being. The next level is Atman: the individual perceiving consciousness of the observer and the light of consciousness of *I Am*. The last level is the virtual reality of a perceivable world. These three levels of reality are the trinity of the one source of existence, the individual being or spirit of the observer, and the observable holographic world within which one's life-form appears.

The Atmanic or *I Am* consciousness of an observer observing its own observable world is always a limitation of consciousness that arises from an observation-limiting holographic screen, which is a bounding surface of space that encodes all the information for everything the observer can observe in its holographic world. Brahmanic consciousness is inherently unlimited and has no boundary, but it also observes nothing since it encodes no information from which forms of information can be constructed and has no energy that can give rise to the animation of forms.

Since all concepts are energetically animated forms of information, Brahmanic consciousness is inherently nonconceptual. No concept can ever describe it. Brahmanic consciousness can only be described in terms of the negation of concepts as limitless, timeless, formless, selfless, emptiness and nothingness. Since it is undivided and undifferentiated, it can also be described as oneness. Atmanic consciousness can only be divided from Brahmanic consciousness when a limiting holographic screen is constructed. Ultimately, when a limiting holographic screen is no longer constructed, limited Atmanic consciousness must return to, reunite itself with and become one with unlimited Brahmanic consciousness. It is then possible to say in a scientific way as Shankara stated long ago: There is ultimately no difference between Atman and Brahman.

Modern physics with its concepts of dark energy and the holographic principle tells us there are three orders or levels of reality. The ultimate level of reality is consciousness itself, which in its primordial unlimited or ultimate state is an empty background space of potentiality. This empty background space is the true vacuum state of nothingness with zero dark energy that gives rise to all other states of existence through the expression of a non-zero value of dark energy, which can only arise from the potentiality of empty space to expand. This accelerated expansion of space always occurs relative to the central point of view of an observer, which breaks the symmetry of empty space as it gives rise to a horizon or bounding surface of space that surrounds the observer at the central point of view and limits the observer's observations of things in space.

Dark energy is the ultimate expression of energy or desire that gives rise to the creation of the observer's world or universe and everything in that world. That world is always defined by the images of things projected from the observer's horizon that acts as a holographic screen to the observer's central point of view. The observer's limiting holographic screen is the nature of the observer's mind, which is the nature of imagination. Just as dark energy explains the nature of energy and desire, the holographic principle explains the nature of mind and imagination.

## **Consciousness, Energy and Imagination Constitute the Nature of Reality**

These three orders of reality are what constitute reality in its entirety: consciousness, which is empty space at rest or without motion; energy, which is the expansion of space or consciousness in motion; and imagination, which is the encoding of bits of information on a bounding surface of space, the projection of images from that bounding surface to the central point of view of an observer, and the animation of those images in the flow of energy. There is nothing else.

The only concepts we have to play with that can allow us to understand the nature of reality are consciousness, energy and imagination. Imagination is what gives rise to the creation of forms, and energy is what animates those forms and makes one feel self-limited to a form. Energy is more real than imagination since it is the motion of consciousness, while imagination is the projected illusion of consciousness. In-and-of-itself, only consciousness is really real, since it is the nature of reality without motion or the projection of illusion.

The world is an illusion in the sense that the world is imaginary, no more real than the animated images of a movie projected from a movie screen to an observer out in the audience. The world seems real to the observer because it feels real as the observer perceives the flow of animating emotional energy through the form of its character, which makes the observer feel self-limited and emotionally identify itself with the form of its character. Only the observer has its own sense of being, but even the observer is part of the illusion. Ultimately, the observer does not exist as an individual self or presence of consciousness. Ultimately, there is only one undivided, unlimited and selfless consciousness. That is the ultimate truth of being that awakening reveals.

Ultimately, all the observer really is, is empty space. That is the mystery of the ultimate nature of its existence. Ultimately, all the observer really does is bend space as it expresses energy and desire and creates the virtual reality or the manifestation of a world for itself to experience. This is a spontaneous expression of creativity for the sheer joy of it; for the love of playing the game.

## **There is No Spoon and There is No Person**

As the Matrix tells us in one of its central scenes, the truth is: there is no spoon. The appearance of a spoon in three dimensional space is only a holographic illusion, like everything else one can perceive in space. The spoon doesn't bend. That's impossible because it doesn't really exist. Only one's self bends as one creates the holographic illusion of the spoon. Although the Matrix didn't



say this explicitly, the lesson to be learned is a person is no more real than a spoon. There is no person. When one realizes the truth, one sees for oneself that only one's self really bends. The irony is one only has a self when one's self bends and one perceives one's own holographic world. When one's self does not bend, one has no self and one perceives nothing.

What is it that really bends? Relativity theory tells us the strange answer is only space can bend. Not the projected holographic space we perceive, but the empty background space of unlimited consciousness within which the holographic universe and its observer arise. Only space can really bend because only empty space really exists. Everything else is part of the holographic illusion. That empty space of non-dual awareness is what one really is.

### **The Spiritual Awakening Process in a Nutshell: The Ego is the Nut, the Shell is a Limiting Holographic Screen, and Awakening is Breaking Open the Shell**

The awakening process only goes forward with a fundamental shift in the focus of attention of consciousness away from the life of a person in the world and onto the true nature of being. At some point in the awakening process, the hypnotic spell is broken, the person is seen to be a hollow shell, emotional bonds to the person are no longer energized and dissolve away, identity with the person snaps, and the focus of attention of consciousness is shifted onto the sense of being present. In the awakening process, there is a fundamental shift in the identity of perceiving consciousness away from the false personal identity of an ego in the world and onto the identity of the conscious presence of the witness of that world.

The only true thing the conscious presence of the observer can ever know about itself is its own sense of beingness, its sense of I-Am-ness, which is the Atmanic identity. Even this individual sense of I-Am-ness is ultimately seen not to be the ultimate truth, and identity finally shifts to the unlimited, unchanging, undivided, unitary oneness of the source of consciousness, which is the Brahmanic identity of the ultimate nature of existence. In the awakening process, the true nature of being first throws off the false identity of a person in the world, the false "I" of an ego, then throws off the individual identity of the observing consciousness of that world, the I-Am-ness of the witness, and finally reaches the ultimate identity of the source of consciousness. The true nature of being throws off all of these false identities and still remains as "I", the inexpressible identity of being infinite nothingness and oneness.

### **Postscript and Disclaimer: The Experience of No-self is No-mind**

The scientific concepts discussed here about the nature of reality are mutually exclusive with one's direct experience of the true nature of one's ultimate reality. All concepts, including all scientific concepts, require a mind to construct those concepts, and the perceiving one must perceive the concepts constructed in that mind. Modern physics tells us that one's mind is only a limiting holographic screen that encodes bits of information and projects mental images to one's

central point of view. That projection is animated as energy flows through one's world. Those mental images include all images of one's world, one's thoughts, and all forms of mental imagination like memory and anticipation of events that allow for construction of a self-concept. Everything one can conceptualize inherently makes use of one's mind. This mental process of conceptualization is mutually exclusive with one's direct experience of one's true nature. One can only experience one's true nature in a state of no-mind. When one has no mind, one has no limiting holographic screen on which concepts can become constructed, animated and projected to one's point of view. The experience of one's true nature is inherently nonconceptual.

When one has no mind, all projected images of one's world disappear from existence, and with the disappearance of one's world, all thoughts, concepts and other forms of mental imagination also disappear from existence. All that remains is the ultimate nature of one's existence. This underlying reality can only be described in negative terms as limitless, timeless, formless, selfless, emptiness and nothingness. The ultimate nature of one's existence is the source of consciousness from which the observing consciousness of all observers at all points of view arise, which can be referred to as unlimited, undivided consciousness or the non-dual awareness that in some inexpressible sense is awareness aware of nothing but undivided awareness.

In this ultimate state of existence, one has no mind or concepts and one knows nothing. In this ultimate state of existence, one is nothing and one does nothing. One simply is. One can only conceptualize what one is by apparently becoming something as one expends one's energy and constructs a limiting holographic screen that is the nature of one's mind that projects all images of one's world and mind to one's central point of view. In the process of apparently becoming something, one has to become an individual presence of observing consciousness. For one to directly experience the true nature of what one really is, this state of becoming has to come to an end. With the direct experience of the ultimate nature of one's being, one directly experiences the inexpressible experience of no-mind in which one is nothing, knows nothing and does nothing.

The individual perceiving consciousness of the observer is always present at the central point of view of its own world with its own inherent sense of being present as a conscious presence. The conscious presence of the observer is itself the bridge that connects the source of consciousness to its observable world. This bridge is like a doorway through which the observer's individual perceiving consciousness ultimately passes as it returns to and reunites itself with the unlimited undivided consciousness of the source. In this ultimate state of reunion, the conscious presence of the observer and the source of consciousness become one, and the undivided awareness of the source becomes aware of the conscious presence of the observer even as the observer perceives its own world. One not only knows oneself to be the conscious presence of the observer, but one also knows oneself to be the source of consciousness. One knows oneself to be the nothingness of the source. One knows the truth of being nothing. The only truth one can ever know about oneself is that one exists, but ultimately one exists as nothingness.

Spiritual awakening is like a spiritual maturation or growing-up process. Whenever the Atmanic or *I Am* consciousness of an observer becomes differentiated from the unlimited undivided Brahmanic consciousness of the void, the observer always observes its own world from the point of view of its own life-form in that world, which is like the central character of a movie it is watching. When that life-form is born, the observer really knows nothing more about itself than the sense *I Am*. As that life-form matures and develops, the observer knows more, but most of what it knows are false self-concepts that pertain to the life-form living its life in the world. As the life-form matures and develops its self-concepts, it inevitably goes through many rambunctious and troublesome phases of development. Each such phase can be characterized as an identity crisis within which the observer takes on a false identity, which is a mentally constructed and emotionally energized self-concept. Spiritual awakening can be understood as the ultimate identity crisis where all false identities are thrown off as the observer withdraws its focus of attention away from them, detaches itself and lets go of everything. The observer finally realizes the true nature of what it really is, and achieves a state of spiritual maturity. As Nisargadatta says "Spiritual maturity is the willingness to let go of everything".