

Article

## The Paradigm Shift of Awakening From Delusion

James Kowall\*

### Abstract

The conventional view of reality one has of oneself and the world is one is a person in the world. One assumes a world of matter, energy, space and time has independent existence, and that one independently exists as a person in that world. One assumes that one is embodied and that one's brain inside one's body gives rise to one's mind that gives rise to one's consciousness. The fact of the matter is this assumption has never been verified and is not supported by scientific evidence. There is another kind of assumption one can make that gives rise to a paradigm shift in the way one sees the world and oneself. Instead of assuming the independent existence of the world, one assumes the independent existence of one's consciousness that perceives the world. Instead of assuming one's consciousness arises from a mind that arises from a brain, one assumes the mind arises from consciousness and the body and brain arise from the mind. Not only the body and brain, but one's whole world arises from one's mind. This paradigm shift is fundamentally a shift in the focus of attention of one's consciousness away from the world and mind that one perceives and onto the true nature of what one is, which leads to one's awakening from delusion.

**Keywords:** Awakening, delusion, spiritual enlightenment, consciousness, paradigm shift.

### Reality and the Movie-in-the-Mind

The conventional view of reality that we have of ourselves and the world is that each of us is a person in the world. We assume that a world of matter, energy, space and time has independent existence, and that each of us independently exists as a person in that world. We assume that each of us is an embodied person, and that our body has a brain that gives rise to our own mind that then gives rise to our own consciousness. The fact of the matter is this assumption has never been verified. Strangely, this kind of assumption is not supported by the scientific evidence we have about the nature of the world. There is another kind of assumption that we can make that gives rise to a paradigm shift in the way we see the world and the way we see ourselves. This alternative assumption is supported by the scientific evidence we have about the nature of the world, and leads to a very different view in the way we see ourselves and see the world.

To understand this paradigm shift all we have to do is turn the conventional view we have of the world and ourselves totally around. Instead of assuming the independent existence of the world, we assume the independent existence of our consciousness that perceives the world. Instead of

---

\* Correspondence: James Kowall, MD, PhD, Independent Researcher. [jkowall137@gmail.com](mailto:jkowall137@gmail.com)

assuming that our consciousness arises from a mind that arises from an embodied brain, we assume the mind arises from consciousness and the body and brain arise from the mind.

The need for a paradigm shift is already apparent in the contradictory and inconsistent ideas of neuroscience as it attempts to solve the mind-body problem. Neuroscientists assume the mind arises from the brain. They describe the perception of all the external sensory perceptions of the world, like sight and sound, and all the internal perceptions of the mind, like thoughts, memories, emotions and feelings, as the movie-in-the-mind. They imagine the mind is like a mental screen that projects all the external sensory perceptions of the world and internal mental perceptions of the mind to an observer that observes these perceptions, but then they have no explanation for the nature of the observer's consciousness that perceives the perceptions. Due to their lack of an explanation for the nature of the observer's consciousness, they describe the observer and its consciousness as an illusion of the mind. Incredibly, they deny that consciousness even exists.

The big problem with this denial by neuroscientists that consciousness exists is that each of us intuitively knows that we are a conscious presence. Each of us is intuitively aware that we exist as a conscious presence that perceives the external perceptions of the world and the internal perceptions of the mind. Each of us is aware of our own sense of being present as the observer.

Neuroscientists would have us believe that the brain generates the movie-in-the-mind of sensory images of the external world and internal images of mental imagination, as though the images are projected from a mental screen to an observer that observes them. Even though each of us intuitively knows that we exist as a conscious presence with our own sense of being present as we observe these images, neuroscientists would have us believe that the consciousness of the observer is an illusion of the mind and is itself imaginary. This is such a strange contradiction to believe that it nicely demonstrates the whole logical fallacy and inconsistency of neuroscience.

## **Paradox of Self-Reference & the Principle of Equivalence**

If we really want to understand the nature of the world and the mind in a way that is not logically inconsistent, we have to appeal to recent discoveries in modern physics and cosmology that do not inherently suffer from logical inconsistencies and contradictions. The scientific discoveries of the last twenty-five years have opened up a way to allow us to understand the nature of the world, and also allow us to solve the mind-body problem and understand our own true nature.

The first thing we have to do to understand what recent discoveries in physics and cosmology are telling us is to broaden our concept of consciousness. The most important thing we can say about consciousness is that it exists, which each of us intuitively knows with our own sense of being present as a conscious presence that perceives all possible perceptions of the world and the mind.

We can only solve the mind-body problem and achieve an understanding of the nature of the world and ourselves if we stop limiting our ideas about the nature of our consciousness.

The big question is what is the primordial or ultimate nature of consciousness? This is really a question about what exists before the world is created. In what form does consciousness exist before the world is created? What exists before anything is created? The answer is nothing exists.

The big scientific clue we have is scientific theories of the creation of the universe along the lines of the big bang event can only assume that prior to the creation of the world nothing exists. This nothingness is not really nothing, since it can only be imagined as an empty space of potentiality with the potential to create the universe in a big bang event. This primordial state of existence prior to the creation of the world is often called the void or the true vacuum state. Although the void is imagined as an empty space, it does not have a dimensionality, but rather has the potential to create all dimensions. Along the lines of relativity theory and the curvature of space-time geometry, the void does not have any curvature, but has the potential to create curved space and time. The void does not have any limitations in the sense of boundaries, but has the potential to create limitations or bounding surfaces of space. The void being nothingness does not have any energy, but has the potential to create energy. The void has no information, but has the potential to create information. The void does not have any observable things, but has the potential to create observable things. Most importantly, the void has the potential to give rise to the perceiving consciousness of the observer that perceives all the observable things.

There are two recent discoveries in modern physics and cosmology that allow us to understand what is really going on in the world. The first discovery is dark energy, which is the primordial energy that creates the world in the first place along the lines of the big bang event. In relativity theory, dark energy is understood as the accelerated expansion of space, which is a kind of curvature of space. In relativity theory, all forces are understood as the curvature of space. The attractive force of gravity is understood as the contraction of space, where all matter and energy cause a local contraction of space around the location of that matter and energy. The attractive force of gravity is understood as the tendency of things to accelerate in the direction of that contracted space, like water that flows downhill.

In a similar way, the force of dark energy is like a globally repulsive force of anti-gravity that is understood as the accelerated expansion of space within which things tend to accelerate away from the central point of expansion. While the force of gravity is locally greatest in strength at the central point of contraction, the force of dark energy globally increases in strength with greater distance from the central point of expansion. In terms of the big bang event that creates the universe, the central point of the accelerated expansion of space is the singularity of the big bang event, just as the central point of the gravitational contraction of space of a black hole is the singularity of the black hole. The force of dark energy is understood as the primordial explosive

energy that creates the universe and puts the bang in the big bang event, which is the accelerated expansion of space that expands relative to the singularity at the central point of expansion.

In relativity theory, the accelerated expansion of space that arises with the expression of dark energy is called an accelerated frame of reference. The concept of a frame of reference is the idea of an observer that observes things from the perspective of the central point of view or origin of a coordinate system. That particular perspective is the observer's frame of reference. In relativity theory, the curvature of space, which is the nature of all forces, always occurs in an observer's accelerated frame of reference. The fundamental postulate of relativity theory is the principle of equivalence, which says the exertion of any force is always equivalent to an observer's accelerated frame of reference, such as the force of gravity that is equivalent to an observer in an accelerating rocket-ship. The observations an observer in the accelerating rocket-ship makes of things apparently falling toward the floor of the rocker-ship are indistinguishable from or equivalent to the observations an observer standing on the surface of the earth makes as things fall toward the ground under the influence of the force of gravity.

The principle of equivalence tells us that every accelerated frame of reference requires the expenditure of energy, just as the accelerating rocket-ship must expend energy through the force of its thrusters as it accelerates through space. The observer is only in an accelerated frame of reference because energy is expended. With the expression of dark energy, an observer at the central point of view of the accelerated expansion of space, which is the point of singularity, is in an accelerated frame of reference due to the expansion of space. In the observer's accelerated frame of reference, space appears to expand away from the observer at an accelerated rate, faster the farther out the observer looks into space, which is always relative to the observer's central point of view at the point of singularity of the expansion of space.

As dark energy is expended, space appears to expand away from an observer at the central point of view at an accelerated rate, faster the farther out the observer looks into space. At some point in space, space appears to expand away from the observer at the speed of light. Due to the limitation of the speed of light as the maximal rate of information transfer in three dimensional space, which is to say nothing can travel faster than the speed of light in three dimensional space, the point of space where space appears to expand away from the observer at the speed of light gives rise to an event horizon called a cosmic horizon. Nothing is observable to the observer at the central point of view beyond the cosmic horizon. The cosmic horizon is observer-dependent since it only arises in the observer's accelerated frame of reference as dark energy is expended. The observer at the central point of view of the accelerated expansion of space has its own observer-dependent cosmic horizon which limits the observer's observations of things in space to the space bounded within the observer's cosmic horizon, which is a bounding surface of space.

The observer's cosmic horizon only arises because the observer is in an accelerated frame of reference due to the expenditure of dark energy and the accelerated expansion of space. If the

expenditure of dark energy comes to an end and space no longer appears to expand relative to the observer's central point of view, the observer no longer has a cosmic horizon that limits its observations of things within that bounded region of space, and the observer's observations become unlimited. The frame of reference within which the acceleration comes to an end and energy is no longer expended is called a freely falling frame of reference. In a freely falling frame of reference, the observer experiences no acceleration or forces, no energy is expended, no observation-limiting event horizon arises, and the observations of things become unlimited, or so it would seem. The answer to this puzzle has to do with what gives rise to the observer's observations of things in the first place. What is the true nature of observation? We already know the answer from neuroscience, which tells us the nature of observation is an observer observing the movie-in-the-mind. All we have to do is correctly identify the true nature of the observer and its mind and understand the nature of all the things that appear in the movie-in-the-mind.

The really big question is what allows for the observer's observations of things? To give a definite answer to this question requires a clear distinction to be made between the observer's consciousness that perceives things and the nature of the things perceived. This is really a question about what is the primordial nature or source of the observer's consciousness? As already discussed, the source or primordial nature of the observer's consciousness can only be identified as the void or true vacuum state that gives rise to the creation of the observable universe. As the observable universe is created from the void, as in a big bang event, the observer's perceiving consciousness must also in some mysterious way arise from the void in order to perceive that perceivable world. The primordial nature of the observer's perceiving consciousness in-and-of-itself is not a perceivable thing, and like the void, can only be described as nothingness or no-thing. What then does this tell us about the nature of the perceivable things?

The answer is that the perceivable things are all composed of bits of information, like the bits of information encoded on pixels on a computer screen that projects images of things to the point of view of an observer outside the screen. This is exactly what quantum theory tells us about the nature of all things since the quantum state of anything is always reducible to quantized bits of information that are organized into information configuration states. In quantum theory, these quantized bits of information are called entropy. The long sought-after solution to the mystery of quantum theory is what is the ultimate nature of these quantized bits of information? It has long been accepted in physics that this solution will only be found after a way to unify quantum theory with relativity theory has been discovered. The ultimate nature of the quantized bits of information that comprise the information configuration states of all the observable things, even the nature of all elementary particles, will only be discovered after space-time geometry is quantized. The irony that physicists did not expect is that the ultimate nature of the quantized bits of information not only can explain the nature of all the observable things, but they can explain even the nature of quantized space-time geometry. The unexpected answer is that the quantized space-time geometry perceived in any bounded region of space is a holographic projection from

the bounding surface of that space, which encodes the fundamental quantized bits of information. This holographic projection of the space-time geometry of the bounded space is perceived by the observer at the central point of view of the bounding surface. This answer which solves the mystery of how quantum theory is unified with relativity theory and how fundamental quantized bits of information are encoded on a bounding surface is called the holographic principle.

## **Quantized Space-Time Geometry & Holographic Projection**

It turns out that physicists have actually known the answer for the last twenty-five years since the holographic principle was discovered. The holographic principle is the second discovery of modern physics that allows us to understand what is really going on in the world. The two recent discoveries of dark energy and the holographic principle pretty much explain the whole thing.

The holographic principle is actually pretty easy to explain. Whenever a bounding surface of space arises in an observer's accelerated frame of reference, like an observation-limiting cosmic horizon that arises as dark energy is expended and space appears to expand at an accelerated rate away from the observer's central point of view, that bounding surface of space acts as a holographic screen that encodes all the fundamental quantized bits of information that comprise the information configuration states of everything the observer can observe within that bounded region of space. The fundamental quantized bits of information not only comprise information configuration states of all the observable things, like elementary particles, but they also comprise information configuration states for the observable space-time geometry of that bounded region of space. Both the observable things, like elementary particles, and the observable space-time geometry are only holographic projections from the observer's holographic screen, which is a bounding surface of space, to the observer's central point of view. This holographic projection to the observer includes both the observable images of things observed within the bounded space and the observable space-time geometry of the bounded space.

This holographic projection is like a computer projection that occurs in a screen output and that is animated over a sequence of screen outputs, like the animation of a movie displayed on a computer screen that is projected to the point of view of an observer outside the screen. This holographic projection and animation of everything in a bounded region of space to the observer at the central point of view, which even includes the space-time geometry of the bounded region of space, is the nature of the movie-in-the-mind that the observer is perceiving.

The holographic principle simply says that all the fundamental quantized bits of information that comprise the information configuration states of all the observable things that can be observed in a bounded region of space, including the observable space-time geometry of that bounded region of space, are encoded on the bounding surface of that region of space. The bounding surface naturally arises as an event horizon whenever the observer enters into an accelerated frame of

reference, such as the observer at the central point of view of the accelerated expansion of space that occurs as dark energy is expended and a cosmic horizon arises. The bounding surface encodes bits of information much like a computer screen encodes bits of information, with one bit of information encoded in a binary code of 1's and 0's on each pixel defined on the screen.

The holographic principle says that the fundamental pixel size is about a Planck area, which is incredibly small since the Planck area is defined in terms of the gravitational constant,  $G$ , the speed of light,  $c$ , and Planck's constant,  $\hbar$ , as  $\ell^2 = \hbar G / c^3$ . The total number of pixels on the screen, which is also the total number of bits of information encoded on the screen, is given in terms of the surface area,  $A$ , of the bounding surface as  $n = A / 4\ell^2$ , which is a huge number for any macroscopic region of space. These bits of information are the fundamental dynamical variables that are quantized in quantum theory, which in thermodynamics are called entropy.

## The Information Loss Paradox

Where does the holographic principle come from? Historically, the holographic principle was first discovered by 't Hooft and Susskind when they tried to resolve the information loss paradox of a black hole that Hawking had discovered when he calculated the entropy of a black hole. A black hole is a region of space where the force of gravity is so strong that even light cannot escape away from this region of space. The black hole is a bounded region of space that is bounded by an event horizon. At the event horizon, the force of gravity becomes so strong that a light ray that originates inside the black hole cannot escape across the horizon, and so for an external observer outside the black hole, nothing is observable within the black hole.

The gravitational field of the black hole is generated by the mass and energy of all the things that fell into the black hole as the black hole was formed. Those things are comprised of quantized bits of information and have entropy, and so the black hole has entropy. Hawking calculated the entropy of the black hole and found that the entropy was proportional to the surface area,  $A$ , of the event horizon exactly as the holographic principle says in terms of the number of bits of information encoded on the horizon as  $n = A / 4\ell^2$ .

Hawking also found that the event horizon of the black hole had a temperature as observed by an external observer and radiated away a kind of thermal radiation that the external observer could observe, which is now called Hawking radiation. The external observer experiences the gravitational force of the black hole, and so the external observer is in an accelerated frame of reference, which requires the expenditure of energy just like an observer in an accelerating rocket-ship. The temperature of the event horizon that the external observer observes implies thermal energy, which is randomized kinetic energy. Where does this thermal energy come from? Hawking found that the horizon's temperature or thermal energy is a kind of Unruh temperature, which is the observed temperature of an event horizon that arises in an observer's

accelerated frame of reference. The horizon's thermal energy can only arise from the energy expended in the observer's accelerated frame of reference. This is purely a quantum phenomena that arises due to the separation of virtual particle-antiparticle pairs at the event horizon.

Whenever virtual particle-antiparticle pairs separate at an event horizon, the separated particles on the observer's side of the horizon become observable particles that the observer in the accelerated frame of reference can observe. The event horizon only arises because the observer is in an accelerated frame of reference that requires the expenditure of energy, which is where the thermal energy comes from. Virtual particle-antiparticle pairs that separate at the event horizon is the nature of the thermal radiation that Hawking discovered that is observed by the external observer in an accelerated frame of reference.

The problem as Hawking soon discovered was the information loss paradox. If the temperature of the event horizon is hotter than the temperature of the surrounding space, the event horizon radiates away thermal radiation into space and can appear to evaporate away as observed by the external observer. The radiated thermal radiation carries away energy that is equivalent to mass, and so as thermal radiation is radiated away from the black hole, the mass of the black hole decreases and the black hole appears to evaporate away. As the mass of the black hole decreases, the size of the event horizon decreases. As the surface area of the event horizon decreases, the entropy given in terms of the number of bits of information encoded on the surface,  $n=A/4\ell^2$ , also decreases, but this entropy represents all the bits of information for all the things that fell into the black hole as the black hole was formed.

The things that fell into the black hole cannot escape away from the black hole because the force of gravity is so strong at the event horizon that even light cannot escape, and yet as the black hole radiates away Hawking radiation and appears to evaporate away, the surface area of the event horizon decreases and so the entropy of the black hole also decreases. What happens to all the bits of information for all the things that apparently fell into the black hole if those things cannot escape away from the black hole as the black hole appears to evaporate away and its entropy decreases? Where does the information go? This is the information loss paradox.

Susskind and 't Hooft discovered that the only way to resolve the information loss paradox was to clearly distinguish what an external observer in an accelerated frame of reference observes from what a freely falling observer that falls across the event horizon observes. For the freely falling observer, there is no acceleration, there is no force of gravity, there is no event horizon, and there is no Hawking radiation. The freely falling observer observes none of it. These things only appear to exist for the external observer in an accelerated frame of reference. The problem is the external observer can never compare its observations with the observations of the freely falling observer since they inhabit regions of space on opposite sides of the event horizon, and so there is absolutely no possibility of communication between them.



Susskind and 't Hooft realized that there really was no information loss paradox since from the perspective of the accelerated external observer nothing ever really fell into the black hole in the first place. Due to gravitational time dilation, which becomes infinite at the event horizon, it would take an infinite amount of time for anything to cross the event horizon from the perspective of the accelerated external observer. They also realized that all the bits of information for all the things that apparently fell into the black hole from the perspective of the accelerated external observer were encoded on the surface of event horizon, just as the holographic principle says. As these things appeared to approach the event horizon and fall into the black hole, all the bits of information became scrambled at the horizon, and then all the information was radiated away back into space with the Hawking radiation as the black hole appeared to evaporate away.

There is another sense in which there is no information loss paradox, which is the essence of the holographic principle. The things that apparently fell into the black hole from the perspective of the accelerated external observer did not really exist in space at all, as the appearance of these things is only a holographic projection from the event horizon to the external point of view of the accelerated observer, much like the projection of images from a computer screen to an observer outside the screen. The event horizon acts like a holographic screen that encodes bits of information in a binary code, with one bit of information per pixel on the screen, and the images of things that arise from information configuration states encoded on the screen are projected from the screen to the point of view of the observer outside the screen. In a very real sense, the appearance of things existing in three dimensional space is only a holographic illusion.

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

The holographic principle is a radical idea, since it says that things do not really exist in three dimensional space, but rather the appearance of things in any three dimensional region of space is a holographic projection from the two dimensional bounding surface of that region of space to the point of view of an observer outside the screen. Not only is the appearance of all things in that bounded region of space a holographic projection to the observer, but even the space-time geometry of the bounded region of space is a holographic projection. In some sense, all scientific concepts, including all of relativity theory and quantum theory, are derivative of the holographic principle, which can therefore be understood as the ultimate scientific concept.

At first, the holographic principle was only an idea based on intuition and a way to resolve the information loss paradox, but soon after it was proposed, string theory in anti-de Sitter space was discovered to explicitly demonstrate the holographic principle. String theory is a quantum theory of elementary particles, but it also is a quantum theory of gravity. Anti-de Sitter space is a special kind of space-time geometry that arises from Einstein's general theory of relativity with a

negative cosmological constant, which gives rise to special kind of bounded region of space where the bounding surface is called an anti-de Sitter event horizon. The anti-de Sitter event horizon is much like the event horizon of a black hole.

String theory explicitly demonstrates that all the things that appear within the space bounded by the anti-de Sitter horizon correspond to bits of information encoded on the horizon, just as the holographic principle says. Even the nature of gravity within the bounded region of space, which is described by the curvature of the space-time geometry of the bounded region of space, corresponds to bits of information encoded on the surface of the anti-de Sitter horizon. Everything observable within the bounded region of space, including the space-time geometry of the bounded region of space, corresponds to a holographic projection from the anti-de Sitter horizon, which acts as a holographic screen that encodes all the bits of information for those observable things, to an observer at the central point of view of the bounded region of space.

### **The Holographic Nature of Perception and Plato's Cave**

It's interesting to examine how string theory accomplished this magic trick. If all perceivable 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.

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 Holographic Principle in de Sitter Space**

The problem with string theory is the kind of space we find ourselves within inside the physical universe is not anti-de Sitter space but de Sitter space. In relativity theory, anti-de Sitter space arises with a negative cosmological constant, which gives rise to a globally attractive force that corresponds to the accelerated contraction of space, while de Sitter space arises with a positive cosmological constant, which gives rise to a globally repulsive force that corresponds to the accelerated expansion of space. For various reasons, a positive cosmological constant is now called dark energy, and de Sitter space is understood as the accelerated expansion of space that arises as dark energy is expended.

As dark energy is expended, the observer at the central point of view enters into an accelerated frame of reference and space appears to expand away from the observer at an accelerated rate, faster the farther out the observer looks into space. The observer is then surrounded by a cosmic or de Sitter horizon, which is a bounding surface of space that limits the observer's observations of things within that bounded region of space. The holographic principle tells us that the observer's horizon acts as a holographic screen that encodes all the bits of information for all observable things the observer can observe in that bounded region of space. The observation of anything within that bounded region of space is a holographic projection from the screen to the observer's central point of view outside the screen.

String theory explicitly demonstrates the holographic principle in anti-de Sitter space and for black holes, but for various technical reasons cannot be applied to de Sitter space. However, string theory is a special case of non-commutative geometry, and generic non-commutative geometry can be applied to de Sitter space, which is to say non-commutative geometry can be applied to the kind of space we find ourselves within inside the physical universe. The magic of non-commutative geometry is it extends the holographic principle into de Sitter space.

It may seem like an arcane topic of discussion, but non-commutative geometry is the natural way to understand how space-time geometry is quantized. The natural kind of geometry for which non-commutative geometry can be applied is a two dimensional bounding surface of space, like an event horizon. Instead of localizing an infinite number of infinitesimal points on the surface of the horizon, with non-commutative geometry a finite number of quantized position coordinates are defined on the surface. In effect, each quantized position coordinate defined on the surface is smeared out into an area element, like a pixel on a screen, with a well-defined mathematical procedure for defining quantized position coordinates in terms of non-commuting variables.

In quantum gravity, the pixel size is about a Planck area, and the total number,  $n$ , of quantized position coordinates defined on the surface is given in terms of the surface area,  $A$ , as  $n=A/4\ell^2$ . Non-commutative geometry not only gives a mathematical procedure for how quantized position coordinates are defined on the surface in terms of non-commuting variables, but also explains how each quantized position coordinate acts like a pixel that encodes a bit of information in a binary code of 1's and 0's. The bounding surface typically encodes  $n$  bits of information as the  $n$  eigenvalues of an  $SU(n)$  matrix. Just as the two eigenvalues of an  $SU(2)$  matrix can explain how a spin variable is quantized into spin up and spin down states, like a computer switch that is either on or off and encodes information in a binary code, the  $n$  eigenvalues of an  $SU(n)$  matrix can explain how  $n$  non-commuting variables defined on the surface encode  $n$  bits of information.

Non-commutative geometry gives us a natural operational explanation for how the holographic principle comes into effect. Whenever non-commutative geometry is applied to a bounding surface of space as a way to define  $n$  quantized position coordinates on the bounding surface, the holographic principle is automatically in effect and the bounding surface encodes  $n$  bits of information in a binary code of 1's and 0's, typically as the  $n$  eigenvalues of an  $SU(n)$  matrix. Each non-commuting variable defined on the bounding surface acts like a pixel that encodes a bit of information. The bounding surface of space naturally arises as an event horizon whenever an observer enters into an accelerated frame of reference, such as a cosmic or de Sitter horizon that arises whenever dark energy is expended and space appears to expand at an accelerated rate away from the central point of view of the observer at the central point of singularity.

This operational explanation explains the nature of everything the observer can observe within the bounded space, which in effect defines the observer's world. The nature of the observation of anything within the bounded space, which is the nature of everything the observer can observe within the bounded space that arises in its accelerated frame of reference, is a holographic projection from the observer's holographic screen, which is a bounding surface of space, to its central point of view, which is the point of singularity of that bounded space.

## **Appearance and Reality & Yin-Yang Balance**

The nature of observation is then reduced to three components: a bounding surface of space that arises in the observer's accelerated frame of reference and acts as a holographic screen; the consciousness of the observer at the central point of view of that bounded region of space; and the holographic projection of the images of all things the observer can observe in that bounded region of space. The observable things do not really exist in three dimensional space. The observable images of things arise from configuration states of information encoded on the observer's holographic screen, which is a two dimensional bounding surface of space, and are projected from the observer's holographic screen to the observer's central point of view in that

bounded region of space. In other words, the appearance of three dimensional objects existing in three dimensional space is really only a holographic illusion. Even the appearance of a 3+1 dimensional space-time geometry existing in a three dimensional region of space is a holographic illusion that arises through holographic projection from the bounding surface of that space.

The holographic principle is telling us that observation is a process of holographic projection. Observable images of things are projected from a holographic screen that encodes all the bits of information for those images to the central point of view of an observer that perceives those projected images. Each holographic projection is like a screen output, and like the animation of computer images, the projected images are animated over a sequence of screen outputs. Just as the position and momentum of a particle are both observable, the form of things and the flow of energy that animates things are both observable. In the usual quantum theory of particles, the non-commuting dynamical variables of the quantum state are position and momentum variables. In the quantum formulation of the holographic principle, the non-commuting dynamical variables are non-commuting position coordinates defined on a bounding surface of space. This is fundamentally a theory of quantized space-time geometry, where the quantized dynamical degrees of freedom are bits of information encoded on the bounding surface. Observation understood as holographic projection tells us that things do not really exist in three dimensional space. The perception of things in three dimensional space is a holographic illusion.

This raises the fundamental question: What really exists and what is only a holographic illusion? The essential question of ontology is why is there something rather than nothing? Why does anything exist? The strange answer is it doesn't. Nothing really exists. The apparent existence of everything is really nothing in disguise. This is the holographic disguise of nothing appearing as something. This is the essential conclusion of the holographic principle that tells us that the appearance of all things is really a holographic projection from a bounding surface of space, which acts as a holographic screen that encodes all bits of information for those things, to the central point of view of an observer, which observes the holographic appearance of those things.

This conclusion is supported by the observations of modern cosmology that demonstrate the total energy of the observable universe is exactly zero. This is possible in cosmology since the negative potential energy of gravitational attraction can exactly cancel out all forms of positive energy like dark energy. From the limited point of view of any observer, the observable universe is bounded by a cosmic horizon that acts as a holographic screen. The fact the total energy of the observable universe exactly adds up to zero tells us that everything is ultimately nothing.

## The Emergent Laws of Physics

If everything perceivable is a holographic projection, where do the laws of physics come from? The holographic principle gives the answer. Ted Jacobson has shown that when the holographic principle is in effect, as it is when non-commutative geometry is applied to a bounding surface of space like a cosmic horizon, the perceived space-time geometry of that bounded region of space obeys Einstein's field equations for the space-time metric. Einstein's field equations describe the dynamical nature of the curvature of the 3+1 dimensional space-time geometry of the bounded region of space, which is the nature of the law of gravity. Einstein's field equations in the three dimensional bounded region of space naturally arise from the way entropy or bits of information are encoded on the two dimensional bounding surface of that space. These bits of information are the dynamical degrees of freedom quantized in quantum theory. The important qualification is Einstein's field equations are not fundamental, but only arise as thermodynamic equations of state that only have the validity of thermal averages that are valid near thermal equilibrium.

Einstein's field equations are really only an expression of the second law of thermodynamic, where horizon entropy and horizon temperature are given in terms of the holographic principle. The second law is only a statistical statement in the form of a thermal average of how entropy changes as heat flows. Entropy is defined in terms of the number of degrees of freedom, while temperature is defined as the thermal energy per degree of freedom. Heat is defined as the total thermal energy of all degrees of freedom, which is simply entropy multiplied by temperature. A change in heat content at constant temperature is therefore proportional to a change in entropy. As heat flows across a bounding surface of space and the heat context of that bounded region of space changes, the entropy of that bounded region of space must change in proportion to the flow of heat. Since the entropy of that bounded region of space is proportional to the surface area of the bounding surface of that space, as entropy changes, the bounding surface must change, which implies a change in the geometry of the bounded space. Although this seems too simple to be correct, this is all that Einstein's field equations for the space-time metric are really saying.

The upshot is that the holographic principle implies Einstein's field equations for the space-time metric, which is the law of gravity as it appears to operate in the bounded region of space. The law of gravity is a direct consequence of how bits of information are encoded on the bounding surface of that space. We now have our first law of physics as a consequence of the holographic principle, and all the other laws of physics will directly follow from the law of gravity.

This seems odd, since all the other laws of physics appear to be about elementary particles and their interactions through the electromagnetic and nuclear forces, while gravity seems to be the odd man out. As is well known, appearances are deceiving. The standard model of particle physics is fundamentally formulated in terms of quantum fields that describe all the elementary particles and their interactions. For at least the last forty years, it has been well known that the easiest and maybe the only way to unify all the fundamental forces is through the unification

mechanisms of super-symmetry and the Kaluza-Klein mechanism of extra compactified dimensions of space. When these unification mechanisms are applied to Einstein's field equations for the space-time metric, all the usual quantum fields of the standard model of particle physics naturally emerge as extra components of the space-time metric.

An elementary particle is really nothing more than a wave-packet of field energy and momentum quantized in the extended dimensions of space, while internal structures of particles, like electric and nuclear charges, are momentum quantized in compactified dimensions. The ordinary gravitational force is gravity that only extends into the extended dimensions of space, while the electromagnetic and nuclear forces are gravity that also extends into compactified dimensions. Gravity is simply the curvature of space-time geometry as represented by the space-time metric.

Since the space-time metric is not really a fundamental thing, neither are the quantum fields of the standard model. All the laws of physics are only giving a thermal average description of what appears to happen in a bounded region of space based on the way bits of information are encoded on the bounding surface of that space. The laws of physics are not really fundamental. Instead of being fundamental, the laws of physics naturally emerge in a holographic world. The laws of physics are just a part of the holographic illusion that arises with holographic projection.

## **Bounding Surfaces of Space and Consensual Reality**

Once holographic projection is understood as the nature of all things, which in the context of dark energy that gives rise to a cosmic horizon that surrounds the central point of view of an observer is the nature of all things perceived in an observer's world, the only thing the mind can be is a limiting holographic screen. The mind is a mental screen that arises as a bounding surface of space and encodes all the bits of information for everything the observer can observe in its own world, including all forms of mental imagination like thoughts and memories the observer can observe in its mind. The only thing the observer can be is a point of consciousness. This is the simplest possible explanation for the nature of the reality we perceive, which is really only like a created virtual reality. Every point of view in the universe can be a point of consciousness, but there can only be one source of consciousness, which we can call unlimited universal consciousness. The entire universe is one totally integrated thing or the unity of all things with unlimited creative potential, for which there can only be one unlimited source of consciousness. This unlimited universal consciousness in-and-of-itself cannot observe the entire universe since there is no universal perspective of the entire universe, only the limited perspectives that arise at limited points of view and that are always limited by a limiting bounding surface of space.

How can many observers arising at many different points of view share a consensual reality? The answer is information sharing, like the information sharing we see in an overlapping network of screens, like the internet. Overlapping bounding surfaces of space that encode bits of information

as holographic screens can share information for whatever appears to happen in their overlapping bounded spaces to the degree they overlap in the sense of a Venn diagram.

## **The Movie-in-the-Mind Revisited**

We now have a scientific explanation for the movie-in-the-mind. As the observer enters into an accelerated frame of reference, which requires the expenditure of energy, a bounding surface of space or event horizon naturally arises that limits the observer's observations of things in space. The observer itself is only the perceiving consciousness present at the central point of view of that bounded region of space. This part of the explanation may be difficult to accept, but that is all the observer really is: a point of perceiving consciousness. The bounding surface of space naturally acts as a holographic screen that encodes bits of information due to the application of non-commutative geometry as the natural way to localize a finite number of quantized position coordinates on the bounding surface, which explains how space-time geometry is quantized.

Each quantized position coordinate on the bounding surface acts like a pixel that encodes a bit of information. Everything the observer can observe within the bounded region of space, which also includes the observable space-time geometry of the bounded region of space, corresponds to the holographic projection of the images of things from the observer's holographic screen to the observer's central point of view in that bounded region of space. The projected images of things correspond to configuration states of information encoded on the observer's screen. Things do not really exist in three dimensional space. The appearance of three dimensional objects in three dimensional space is only a holographic illusion that arises with holographic projection.

This is obviously a radical idea, but it does explain the nature of the movie-in-the-mind. The movie screen is a holographic screen, which is a mental screen. The projected movie images include all external sensory images of the observer's world, including the observable space-time geometry of that world. The projected movie images also include all internal mental images of mental imagination, like thoughts, memories, emotions and feelings. All of these projected movie images correspond to configuration states of information encoded on the observer's holographic screen, which is a mental screen. Each projection of holographic images is like a screen output from a computer screen, and the animation of the images occurs over a sequence of screen outputs that arises in the flow of energy. The flow of energy is a necessary condition for the generation of the movie-in-the-mind, since the observer's holographic screen only arises as a bounding surface of space when the observer enters into an accelerated frame of reference, which requires the expenditure of energy. Holographic projection and animation of images must always occur together. Just like the projection and animation of a movie on a computer screen, the animated images are always projected to an observer outside the screen.



The observer is only a presence of perceiving consciousness at the central point of view of the region of space bounded by the observer's holographic screen. The whole observation process can only begin when energy is expended and the observer enters into an accelerated frame of reference. If this does not happen, there is no observation of anything. The state in which no energy is expended is the state of a freely falling observer, within which there is no acceleration and no bounding surface of space. If energy is not expended, there is no movie-in-the-mind, and nothing is observed. If nothing is observed, there is no reason for an observer to be present.

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

This brings us back to the original part of the argument about the need to broaden our concept of consciousness. It was argued that the void of nothingness or true vacuum state that gives rise to the creation of the physical universe in the first place is also the primordial nature or source of the observer's perceiving consciousness that perceives everything in that world. The observer's perceiving consciousness cannot arise from a brain inside a body, since a body is just another perceivable thing in that world, which is no more real than a holographic image projected from the observer's holographic screen to the observer's central point of view. The source of the observer's perceiving consciousness must be the very same void of nothingness that gives rise to the creation of the observer's perceivable world. This void of nothingness is unlimited, and for lack of a better description can be called unlimited Brahmanic consciousness. In some inexplicable way, this nothingness is also infinite oneness, which is the primordial or ultimate nature of existence. Unlimited existence is always an undifferentiated or formless existence. This ultimate infinite oneness of nothingness is inherently nondual.

On the other hand, the observer's perceiving consciousness and its holographically-generated perceivable world of forms is a limited kind of existence that arises with the limitation of consciousness to a bounded region of space. Limited existence is always a differentiated existence that inherently arises with a world of forms, which can be called the dualistic universe in distinction to the nondual nature of unlimited existence. This limited existence is like a virtual reality, since it consists of nothing more than the forms of holographic images projected from a screen to an observer outside the screen. Only the perceiving consciousness of the observer has an ultimate reality, which is the ultimate and formless reality of the void. The virtual reality of a holographic world of forms is a lesser kind of reality. Again, for lack of a better description, this limited and differentiated state of existence can be called limited Atmanic consciousness.

The limited and differentiated state of existence of the perceiving consciousness of an observer and its holographically-generated perceivable world of forms is the only possible logically consistent scientific solution of the mind-body problem that can also explain the nature of the movie-in-the-mind. Everything is really all in the mind. The mind is a mental screen that is an

observation-limiting bounding surface of space that acts as a holographic screen, which is a limitation of consciousness. Without a mind, there is only the formless, infinite oneness or emptiness of nothingness, and yet this formless emptiness has the unlimited potential to holographically create a limited observable world of forms and perceive that world from the limited perspective of the central point of view of that world.

When the holographic principle is understood in the context of dark energy, which is the primordial energy that creates the universe in the first place along the lines of the big bang event, the answers to the questions raised in this discussion of consciousness become very clear as long as we are clear about the unlimited primordial nature of consciousness. The important distinction is between unlimited Brahmanic consciousness, which is the nature of the formless void of undifferentiated infinite nothingness that exists prior to the creation of a limited world of forms but has unlimited potential to create limited worlds of forms, and limited Atmanic consciousness, which is the nature of an observer and its observable world. What limits Atmanic consciousness is a bounding surface of space that arises in the observer's accelerated frame of reference as energy is expended and acts as a limiting holographic screen that projects all images of the observer's world to the observer's limited central point of view of that world.

This limiting holographic screen is really a mental screen, which is the nature of the movie-in-the-mind the observer observes. The mental screen projects all external sensory images of the observer's world, like sight and sound, and all internal mental images, like thoughts and memories, to the observer's central point of view. As quantum theory tells us, the observer must be present to observe these images, since that is the only way an unobserved quantum state of potentiality can become an observed state of actuality. The mental screen is what limits the observations of the observer's consciousness. Without that limitation, consciousness becomes unlimited, which must ultimately occur when energy is no longer expended, the observer's accelerated frame of reference comes to an end, the mental screen is no longer holographically constructed on an observation-limiting bounding surface of space, and the observer's world and mind disappear from existence. When the observer is no longer present for its world and mind and its world and mind disappear from existence, the observer's limited consciousness can only return to and reunite itself with unlimited consciousness. It is then possible to say in a scientific way as Shankara stated long ago: Ultimately there is no difference between Atman and Brahman.

## **The Hypnotic Spell of Self-Identification in the Virtual Reality Dream-State**

The observer's holographically-generated mind is like a virtual reality dream-state that casts a hypnotic spell over the observer. The observer identifies itself with the form of its character in the dream-state like an observer out in an audience identifying itself with the animated form of the central character of a person in a movie it is watching. In this hypnotic spell, the observer's

focus of attention is monopolized by concerns about the welfare of the form of the person with which it identifies itself. The observer not only feels compelled to identify itself with the emotionally animated form of the person, but also feels compelled to defend that form as though its existence depends on it. This hypnotic spell of self-identification can only occur because the observer really feels self-limited to the animated form of its character as it perceives the flow of emotional energy through the animated form of its character. Plato referred to an observer that emotionally identifies itself with the personal form of its character as a prisoner.

The reason for this kind of emotional self-identification is actually pretty easy to explain in terms of conventional science. An emotionally animated form is always a self-replicating form that tends to replicate its form in a recognizable form over a sequence of perceivable events. Forms of information are only able to replicate their forms due to the tendency of bits of information to bind or align together. This tendency of bits of information to hold together in a self-replicating form is called coherent organization. The underlying basis for the coherent organization of information is the entanglement of information, which is an essential aspect of a holographic world. In terms of non-commutative geometry, all the bits of information on the holographic screen are entangled since they arise as eigenvalues of an  $SU(n)$  matrix. Entangled bits of information have a natural tendency to align with each other over a sequence of observational events, just like entangled spin variables tend to align in a spin network.

This natural tendency for coherent organization of information to develop in a holographic world is opposed by the tendency for information to become disorganized as heat flows in a thermal gradient, which we refer to as an increase in entropy. For physical objects, like pool of water that freezes into a piece of ice as the temperature is lowered, the organization of the ice crystals only develops because heat flows away from the water. When heat flows into the ice, the ice becomes more disorganized as the ice crystals melt back into water. Organization and disorganization of physical objects is pretty much limited to the flow of heat in a thermal gradient, which we understand as the randomized flow of thermal or kinetic energy.

Life-forms are different than physical objects since they have another option, which is the addition of organizing potential energy to the life-form through the process we call eating. When a life-form eats another life-form, organizing potential energy is added to the life-form. The organization of the life-form is always in a balanced state, as the flow of thermal energy tends to disorganize the life-form, like a piece of ice that becomes more disorganized as heat flows into it, while the addition of organizing potential energy through the process of eating other life-forms tends to maintain the organization of the life-form. Life-forms are only able to self-replicate their forms or maintain their state of organization in a recognizable form if they eat other life-forms. The exception to this rule is the life of plants, but even plants have to eat photons.

The necessity for life-forms to eat other life-forms in order to self-replicate their forms is the basic nature of desire. The flip side of desire is the necessity for life-forms to avoid being eaten

by other life-forms, which is the basic nature of fear. Fear and desire are the essential emotional expressions that allow life-forms to live. The emotional expression of fear and desire is an inherent aspect of living the life of a life-form. Understood in this way, living the life of a life-form is nothing more than the self-replication of form that occurs through the emotional expression of fear and desire. That is the only way a life-form can self-replicate its form or maintain its state of organization in a recognizable form over a sequence of perceivable events.

What is a perceivable event? We've already answered this question in terms of the holographic principle. A perceivable event is a holographic projection. The form of the life-form is projected from a holographic screen to the point of view of an observer that perceives the image of that form. The projected image is only a form of information that arises from the way information is encoded on the screen, just like images projected from a computer screen to the point of view of an observer outside the screen. The radical nature of the holographic principle is everything the observer can observe in its world is a form of information projected from the screen. This tells us the observer is only a point of perceiving consciousness in the empty space outside the screen.

The projected image of the life-form is animated over a sequence of perceivable events, just like images projected from a computer screen are animated over a sequence of screen outputs. This animation of the life-form is inherently an emotional animation that arises through the expression of fear and desire, which allows the life-form to self-replicate its form in a recognizable form.

Who is recognizing that form? The observer is recognizing that form, but the observer is doing more than just recognizing that form. The observer is emotionally identifying itself with that emotionally animated form. The observer identifies itself with that form because it really feels self-limited to that form as it perceives the emotional energy that flows through and animates that form. Once self-identified, the observer feels compelled to defend the survival of that form as though its existence depends on it, which leads to the expression of more self-defensive emotions of fear and desire that allow for self-replication of that form, which perpetuates the vicious cycle of the observer's emotional self-identification with its life-form.

This vicious cycle is the hypnotic spell that monopolizes the observer's focus of attention. The observer is focusing its attention on the survival and welfare of its life-form as though its existence depends upon it because it really believes that it is its life-form. The nature of this belief is what is called a self-concept. As the observer identifies itself with its life-form, the observer's mind constructs a self-concept that tells the observer that it is the life-form. This mentally constructed self-concept is life-form based and emotionally energized. The expression of self-defensive emotional energy makes the observer feel self-limited to the emotionally animated form of its life-form, which is what makes the belief in a self-concept believable.

The self-concept is only a false belief the observer believes about itself. The self-concept is just another mental image projected from the observer's mental screen. In reality, the observer is only a point of perceiving consciousness in the empty space outside the screen that arises in relation to

the screen. All self-concepts are images projected from the screen. The only reason the belief in a self-concept is believable is because the self-concept is emotionally energized, which makes the observer feel self-limited to the emotionally animated form of its life-form. The observer's belief that it is the life-form is what perpetuates the hypnotic spell that monopolizes the observer's attention. The observer focuses its attention on the emotionally animated life of its life-form as though its existence depends on it because that is the way it really feels. It feels real.

The observer's belief in its self-concept is part of a belief system. This situation is actually much worse than a belief system. All belief systems begin with a core belief, which is one's belief in oneself. One must believe in oneself before one can believe any other beliefs that are part of a belief system. One must believe in one's self-concept. Belief systems are notoriously hard to break because one almost never examines one's own core belief in one's self-concept.

Breaking the hypnotic spell of self-identification is inherently a process of no longer believing in one's own self-concept. One has to examine one's own self-concept, see its inherent falseness, and stop believing it. This is inherently a process of negation as one stops believing that one can be anything that one can perceive. One is not something that one can perceive in one's world.

The only thing that ever makes belief systems believable is the emotional energy that energizes them. The perception of emotional energy is what creates the emotional context within which all beliefs are believed. The core belief of all belief systems is one's belief in one's self, which is inherently the belief in one's self-concept. The only thing that makes a self-concept believable is the perception of emotional energy that makes one feel self-limited to that concept of self. The hypnotic spell of self-identification can only arise within that emotional context.

## **Breaking the Hypnotic Spell of Self-Identification**

The key that allows us to understand how the hypnotic spell of self-identification is broken in the observer's focus of attention. This hypnotic spell can only persist if the observer focuses its attention on the life of the person in the world it takes itself to be as though its existence depends on it. The emotionally animated form of the person is just another form of information projected from the observer's holographic screen to its central point of view. Breaking the hypnotic spell is only possible if the observer shifts the focus of its attention away from the life of the person in the world it perceives and onto the true nature of what it is, which is perceiving that world.

The only way to understand this shift in the observer's focus of attention is with a more complete discussion of the nature of the observer's consciousness. The observer is a point of consciousness at the central point of view of its world that arises in relation to a holographic screen that projects all the images of its world. The observer's consciousness has both an outgoing projecting aspect and an incoming perceiving aspect. The outgoing projecting aspect is its focus of attention,

which is like the light of a movie projector that projects all the images of a movie from a screen as that light is reflected off the screen. This projecting light is not physical light, but is best called the light of consciousness. The outgoing projecting aspect of the observer's consciousness is the light of consciousness that emanates from its point of view and is reflected off its holographic screen back to itself as all the projected images of its world are perceived. The incoming perceiving aspect of the observer's consciousness is what perceives those projected images. The observer can only perceive whatever it focuses its attention on with the light of its consciousness.

The observer can only perceive its world when it is present to perceive its world. Being present is the nature of focusing its attention on its world, which is also the nature of shining the light of its consciousness on the holographic screen that projects all images of its world. The observer is projecting those images with its own light of consciousness. Being present is the nature of a presence of consciousness that focuses its attention or shines the light of its consciousness on its world. The observer is illuminating its own world. Since the holographic screen is the essential nature of a mental screen, the observer is illuminating its own mind.

Quantum theory tells us that the observer's world only exists in an unobserved quantum state of potentiality until observed. The observer's holographic screen is the fundamental nature of the quantum state of the observer's world. The bits of information encoded on the holographic screen are the fundamental dynamical degrees of freedom that quantized in quantum theory, which are called entropy in thermodynamics. This quantum state can be conceptualized as all possible ways bits of information can become encoded on the screen. In any actual observation of the observer's world, this unobserved quantum state of potentiality must be reduced to an actual observable state specified in terms of an actual configuration state of information encoded on the screen.

The quantum state of the observer's world only exists in an unobserved state of potentiality until the observer observes it. Observing it means the observer must be present for its world, which means the observer must focus its attention on its world. The observer must be present before its world can come into an actual observable state of existence. Since that world is a holographic world that consists of nothing more than images projected from a screen, the observer's world only appears to come into existence as the observer observes it. If the observer is not present to observe its world, if it does not focus its attention on its world, if it does not illuminate its world with its own light of consciousness, then its world disappears from existence.

There is nothing mysterious or magical about the disappearance of one's world. This happens every night when one falls into a deep sleep. One does not become unconscious in deep sleep. One's consciousness becomes aware of nothing, which is what one really is.

The only real difference between the experience of nothingness in deep sleep and the nothingness that one knows oneself to be when one awakens from delusion is one's focus of attention. In deep sleep, when one is not present to observe one's world, one withdraws one's focus of attention away from one's world, and there is nothing. One gets lost in the void so to

speak. With one's awakening from delusion, one not only shifts the focus of one's attention away from one's world, but one also redirects one's focus of attention onto the true nature of what one is, and one directly experiences that true nature as one's world disappears from existence. One directly experiences the true nature of one's being, which is what exists when one's world disappears from existence.

One directly experiences the true nature of one's underlying reality. That underlying reality is what remains when one's world disappears from existence. This is described as awakening since it is just like awakening from a dream. When one awakens from a dream, the dream disappears from existence and only the true nature of the dreamer remains. That underlying reality can be called the ground of being since it is the true nature of what the dreamer is.

## **Awakening from Delusion**

Delusion is inherently an emotional state of being. The false belief in a self-concept can only arise in the emotional context that makes that belief believable. The self-concept is a false belief the believer believes about itself. This is only possible because one is focusing one's attention on the false belief as though one's existence depends upon it, which one does because one believes that false belief about oneself. One believes that one is that concept of self. What makes that false belief believable is the emotional energy that makes one feel self-limited to that concept of self. That emotional energy can only arise because one is focusing one's attention on it.

Quantum theory tells us the observer's world only exists in an unobserved state of potentiality until observed. The observer must be present in the sense of focusing its attention on its world for its world to appear to come into existence. In terms of the holographic principle, the observer observing its world is a process of holographic projection. The observer must shine the light of its consciousness on its holographic screen in order to project the images that it perceives as that light is reflected back to itself. Not only do the form of all things exist in an unobserved state of potentiality until observed, but the flow of energy that animates all things also only exists in an unobserved state of potentiality until observed. The observer is not only perceiving the projected images of its world, but it is also projecting and animating those images. The observer must be present not only to perceive its world, but also to project and animate its world.

This emotional animation of the observer's world that arises through its focus of attention is the key that allows for an understanding of how one awakens from delusion. The only thing that keeps the observer interested in its world and monopolizes its focus of attention like a hypnotic spell that it is under, is its false belief in a concept of self. That false belief is only believable because it is emotionally energized. The observer must emotionally energize that false belief through its focus of attention on the false belief.

That false belief is always created in an emotional context. As enlightened beings have always known but neuroscience has only recently discovered, all meaning is established in an emotional context. The observer's belief in a false self-concept is the emotional meaning the observer gives to that false belief. The observer really believes that it is that concept of self because that is the way it emotionally feels. Just as seeing is believing, feeling is also believing. Perception is reality in the sense that perceiving is believing. One is predisposed to believe whatever one perceives.

The irony is that the reality one perceives is an imaginary kind of reality, like the images of a virtual reality projected from a computer screen to the point of view of an observer outside the screen. The reality the observer perceives is no more real than images projected from a screen. Everything the observer can perceive in its world is imaginary in the sense of projected images, but the observer itself is not totally imaginary. The observer as a point of consciousness has an underlying reality in terms of the source of that consciousness.

Awakening from delusion is only possible because the observer has the inherent ability to shift the focus of its attention away from its world and onto the true nature of what it is. Only this shift in the observer's focus of attention can break the hypnotic spell that monopolizes the observer's focus of attention. Although awakening from delusion can only be understood as an experience that is outside of time, the journey to awakening must occur within the flow of time. There are a number of steps that are an inherent part of the journey to awakening.

## **Steps in the Journey to Awakening**

An essential step on this journey is surrender to divine will. It is not possible to discuss divine will without a discussion of free will. In terms of the quantum state potentiality of the observer's world, every observation of that world is a choice that reduces the quantum state to an actual observable state. This choice can be understood as a decision point on the observer's world-line, which from the observer's own point of view is a time-line since the observer goes nowhere relative to its own point of view. It is always at the origin of its own coordinate system or frame of reference, which is the central point of view of its world. Every projection of the images of its world from its holographic screen is perceived at this central point of view. These images are projected as the observer focuses its attention on its world. Every projection arises as a choice the observer makes at a decision point on its world-line. The observer is not only choosing what to observe in its world, but is also choosing which path to follow through its world.

The quantum state of potentiality of the observe's world can always be formulated as either a sum over all possible paths through that world or a sum over all possible observable states of that world. These formulations are equivalent. The information configuration space allows for either formulation of the quantum state as a sum over all possible observable states of information or a sum over all possible paths through the information configuration space. The classical path,



which is the most likely path in the sense of quantum probability, is the path of least action, which is like the shortest distance between two points in the information configuration space.

An observable event is a quantum state reduction that reduces the quantum state to an actual observable state. This observable event is inherently a choice that chooses what is observed and which path is followed. In the usual formulation of quantum theory, this choice is assumed to occur randomly, since that is the only way the laws of physics have any predictability. The quantum state is like a probability distribution that must be randomly measured for probability to have any predictability. Random choice is unbiased choice. 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. Personal bias tells us the dice are loaded and the game is rigged. People are notoriously biased in a personal way.

Once we understand an observable event as a holographic projection, the possibility of bias creeps into quantum theory. It is the observer that is making its choices about what to observe in its world and which path to follow through its world as it focuses its attention on its world and perceives the projected images of that world. The observer's choice is an expression of free will. If the observer's focus of attention is biased, the choices it makes are also biased.

The expression of free will is inherently biased. This is always an emotional bias. The observer is emotionally biased since it has emotionally identified itself with the emotionally animated form of a person it perceives in its world, and therefore its focus of attention is emotionally biased to defend the survival of that self-replicating form as though its existence depends on it.

What kind of will is unbiased? The answer is divine will. There is a normal flow of energy through the observer's world that tends to animate all things in an unbiased way. As long as choices are made in an unbiased way, this normal flow of animating energy is in operation. The observer's expression of free will that arises through emotional bias in its focus of attention is always an interference with this normal flow of things. This interference is an obstruction in the normal flow of things that only creates an emotional disturbance in the normal flow of energy.

This emotional disturbance is the nature of the mentally constructed self-concept of being a person in the world. This emotional disturbance is how the self-concept is emotionally energized through the expression of fear and desire. This emotional disturbance can only arise when the observer focuses its attention on its self-concept in emotionally biased ways, which leads to the expression of more personally biased emotions. Emotional bias in the observer's focus of attention perpetuates the hypnotic spell of self-identification that monopolizes the observer's attention. The observer is focusing its attention on its personal self-concept in emotionally biased self-defensive ways as though its existence depends on the survival of the person.

Only surrender to unbiased divine will can break this vicious cycle of personal self-identification and self-defense. With surrender, one puts one's trust in divine will and the normal flow of things

to sort out what is for the best. One becomes willing to allow things to play out in the normal way without any desire to interfere with things, control things, or defend anything. The essence of surrender is giving up. One gives up the desire to control things in a self-defensive way.

Once one surrenders, one's focus of attention becomes unbiased, and the flow of energy that animates one's character in the world one perceives comes into alignment with the normal flow of energy through that world. This alignment of the flow of energy is experienced as feelings of connection. One feels connected to all things and there is the experience of unconditional love for all things. In this feeling of unity and connectedness, feelings of self-limitation melt away, and the emotionally energized concept of a personal self also dissolves away. One can know oneself only as the space within which all things are perceived, or as the conscious presence at the center of one's world. This way of knowing oneself is often described as a born-again experience, within which one has died to one's false self-identification with the embodied form of a person and is reborn to the truer identity of being a spiritual presence of consciousness.

Another essential step in the journey to awakening is detachment. It is not enough to surrender to divine will and give up one's emotionally biased desire to control things in a self-defensive way. One must also become willing to let go and sever one's emotional attachments to things. When one detaches oneself from things, one begins to see things with a sense of distance. One sees things like a movie that one is watching as images of things are projected from a screen to one's point of view out in the audience. This way of seeing things with a sense of distance or a sense of being outside of things can be called the ascension of one's consciousness to a higher level. One sees that one is not really inside of things, but is always outside of things, like an observer out in a movie audience is outside the projected images of a movie that it is watching.

Severing emotional attachments is a way of cutting the knot of personal self-identification. With detachment, one sees that one cannot be anything that one can perceive in one's world. One is always outside of all things, even the animated form of a person that one once took oneself to be. One sees personal self-identification as an emotional mistake that one makes about oneself due to feelings of self-limitation, but when one detaches oneself from things and stops expressing those self-limiting emotions, one stops identifying oneself. One sees that all things come and go like clouds in the sky, and one is only watching things come and go from one's ascended point of view outside of all things. Even one's thoughts come and go. One's personal self-concept is only another thought that comes and goes, and one need not give it any special importance because one can directly see that one is not that concept of a personal self.

Through steps of surrendering to divine will and severing emotional attachments, the journey to awakening takes one into a state of negation and disillusionment. One can directly see for oneself that one is not anything that one can perceive. One directly sees that the perceivable things in some sense are all imaginary, like the images of a virtual reality projected from a screen. One can directly see that the world one perceives is really just a big illusion of what one really is. One

can see that the emotionally animated form of a person that one once took oneself to be in that world is only the central part of that illusion, like the central character of a movie one is watching.

Once one directly sees the nature of illusion for oneself and becomes disillusioned, one naturally loses interest in the illusion. This loss of interest in the illusion is how the spell of personal self-identification is ultimately broken. When one loses interest in the illusion, one no longer feels compelled to focus one's attention on it. One can directly see the hypnotic spell was only cast because one felt compelled to focus one's attention on it as though one's existence depended on it. When one directly sees the illusion as an illusion, one knows that one's existence depends on nothing that one perceives in the illusion. One knows for oneself that the true nature of what one really is, is always outside the illusion. Once one sees the illusion as an illusion and loses interest in the illusion, one no longer feels compelled to focus one's attention on the illusion.

The journey of awakening from delusion only goes forward when one sees the illusion as an illusion, loses interest in the illusion, and withdraws one's attention away from the illusion. At the same time, one can only awaken if one shifts one's focus of attention onto one's own sense of beingness or being present as a presence of consciousness. It is not enough to simply withdraw one's attention away from one's world and no longer be present to perceive it. This happens each night when one falls into a deep sleep and one's world disappears from existence from one's point of view. One does not awaken from delusion during deep sleep. One just gets lost in the void.

The only way one can awaken from delusion is if one shifts one's attention onto one's own sense of beingness while one withdraws one's attention away from one's world. One must bring oneself into focus and know oneself as the conscious presence at the center of one's world. Knowing oneself in this way is the highest level of self that one can ever experience. One directly sees that it is this presence of consciousness at the center of one's world that is creating and destroying the appearance of that world. One's own light of consciousness is projecting the images of that world as that light is reflected off one's mental screen, and one's perceiving consciousness is perceiving those projected images. One's own light of consciousness is illuminating one's mind. When one focuses one's attention on one's own sense of beingness, one is bringing together one's light of consciousness with one's perceiving consciousness and allowing them to become one.

## **Going Further in the Journey to Awakening**

This experience of oneself as a self-emanating source of consciousness that both illuminates and perceives one's world is the highest level of self that one can ever experience, but that is not the final destination of the journey to awakening. The final destination of the journey is a place without concepts, even a concept of self. One must go further than this highest level of self.

It is the going further part of the journey that one can never wrap one's conceptual mind around. The mind is inherently a mental screen, which like a holographic screen is a bounding surface of space that encodes all the bits of information for every concept that can ever arise in the mind. The mind as a mental screen is always a limitation of consciousness. The going further part of the journey is going beyond the limitation of the mind into unlimited consciousness.

One cannot take any concept of self with one into unlimited consciousness, since this is a place without concepts. The only way one can ever enter into unlimited consciousness is if one is free of all concepts, including the concept of self. All concepts are forms of information that arise from a limiting mental screen. Even the highest level of self is a presence of consciousness at the central point of view of that mental screen. All mental concepts are forms of information, and the meaning one gives to concepts only arises in an emotional context due to the emotional energy that animates those forms of information. Unlimited consciousness is not limited by a mental screen, which is to say that in-and-of-itself, it encodes no information, expresses no energy, and forms no concepts. One can only enter unlimited consciousness without a concept of self.

## **Ego-death as a Means to No-self**

The self-destructive process of freeing oneself from all concepts of self is called ego-death. This is an absolutely necessary aspect of going further. The furthest reaches of further means there is no further since unlimited consciousness is infinite and has no boundary. No boundary means no information and no energy. No information or energy means no concepts. No concepts means absolutely nothing. One can only reach the final destination of the journey of awakening and enter into unlimited consciousness at the conclusion of a self-destructive process of ego-death, which is to say one must be free of all concepts, including the concept of self.

The self-destructive process of ego-death only goes forward with one's willingness to look within and examine one's own mentally constructed self-concept. The only way the self-concept can be deconstructed is if one clearly sees it as a false belief that one believes about oneself. One has to see the self-concept as an illusion of what one is, and stop believing it. Once seen as an illusion, one loses interest in it, which is how one withdraws one's focus of attention away from it. Without one's focus of attention on it, one no longer emotionally animates it with one's investment of emotional energy in it. The self-concept becomes deanimated as one withdraws one's focus of attention away from it. In the process of exposing the self-concept as an illusion, one uses other concepts to expose the falseness of the self-concept. In effect, more valid concepts are used to destroy the falseness of the self-concept. In a sense, one goes to war with one's own ego and uses concepts as self-destructive weapons like missiles in a search and destroy mission.

Ultimately, all concepts must be given up in the journey to awakening, but this giving up is much easier once the self-concept has been destroyed and removed from one's focus of attention. Even

the highest sense of self, the sense of being a presence of consciousness at the center of its own holographic world, must be given up to go further into unlimited consciousness. Even the sense of being this presence consciousness has a core concept at its center, which is the sense of I-Am-ness. Those who experience this highest level of self naturally refer to it as *I Am*. Going further into unlimited consciousness is the experience of I Am not, which can be called No-self.

The journey of awakening from delusion is inherently a self-destructive process of ego-death that leads to the experience of No-self. One does not experience *I Am*, one experiences I Am not. This self-destructive process of ego-death is inherently a deanimation of ego. The ego is only deanimated when animating emotional energy is not expressed. When animating emotional energy is not expressed, forms of information are not constructed in the mind as concepts. The mind as a mental screen that encodes bits of information for all the forms animated in the flow of energy ceases to exist. When animated forms of information are no longer projected to the consciousness of the observer at the central point of view of the mental screen, the observer as an individual presence of consciousness ceases to exist, but consciousness does not stop existing.

Unlimited consciousness continues to exist even when the mind and its observer disappear from existence. When the observer withdraws its focus of attention away from its mind and is no longer present to illuminate and perceive its mind, its mind disappears from existence. When the observer simultaneously focuses its attention on its own sense of beingness and knows itself to be the highest level of individual consciousness, the *I Am* presence of consciousness at the center of its world, while its world disappears from existence and this highest sense of self ceases to exist, something wonderful and mysterious happens that is called awakening from delusion. The individual *I Am* consciousness, which is always a limitation of consciousness, ultimately returns to, reunites its with, dissolves into, and becomes one with unlimited consciousness.

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

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. This waste of time and energy is the meaning of the wasteland in the grail legend. 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 Gateless Gate and the Doors of Perception**

William Blake wrote about the doors of perception as the gateway to the truth of one's being. When he wrote the doors of perception must be cleansed before one could directly experience the true nature of one's being, he was alluding to the cleansing of the sense of self. In Zen, the gateless gate paradox is alluding to the same cleansing of the sense of self. One can only pass through the gateless gate when one is without a sense of self. One must become selfless.

Nisargadatta Maharaj also discusses this doorway and the need to cleanse oneself of the sense of self before passing through the doorway. In *I Am That*, 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 doorway. When one becomes selfless, one crosses over to the other side as the doorway opens and one passes through it.

The doorway is one's own sense of being present as a presence of consciousness at the central point of view of one's world. One must be present for one's world in the sense of focusing one's attention on one's world for that world to appear to come into existence as one observes it from one's own point of view. When one is not present to observe one's world, it disappears from existence from one's own point of view. Being present at the doorway means that one must focus and stabilize one's attention on one's own sense of being present and beingness. As one focuses one's attention on one's own sense of being present, one withdraws one's attention away from one's world, which then disappears from existence since one is no longer present to observe it. This only happens if one stabilizes one's attention on one's own sense of beingness.

Being present at the doorway means one shifts the focus of one's attention away from one's world and onto one's own sense of being present, where one's attention must become stabilized before one can go further. It is the going further part of the journey that one can never wrap one's mind around. Knowing oneself as the consciousness present at the center of one's world is the highest level of consciousness that one can have while one still has a sense of self. This highest level of individual consciousness with its inherent sense of self and sense of being present can be called the Ascended Self, or the Atmanic Self, or the *I Am Self*.

## **If You Meet the Buddha on the Road, Kill Him**

In the journey to awakening, one can only go further if one kills the Buddha. The Buddha is the highest sense of self, the ascended Atmanic Self at the central point of singularity, which is the highest level of consciousness one can have while one still perceives one's world. 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 one's own sense of self before one can experience this ultimate state of No-self.

Killing the Buddha is another version of the Zen saying: "When you reach the top, keep climbing". The highest sense of self is not the final destination of the journey. 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. The goal is to become selfless. One is only done when one is truly selfless.

## **Falling into the Void**

Going further means that even the highest sense of self is left behind. When one shifts and stabilizes one's focus of attention on this highest sense of self while one also completely withdraws one's attention away from one's world, something very strange happens. One's world disappears from existence since one is no longer present to observe it, but one doesn't stop existing. One knows that one exists as nothingness as one passes through the gateless gate or the doorway of one's sense of beingness. This is often described as falling into the void.

Once the *I Am* consciousness brings itself into focus and knows itself to be nothing more than a pure presence of consciousness at the center 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 *I Am* consciousness brings itself right to the edge of the abyss that separates being present to illuminate and perceive the appearance of its world from the disappearance of its world and not being present. At that point, the *I Am* consciousness becomes an *I Am not*, the abyss opens up and one dissolves into it like a drop of water that dissolves back into the ocean. This is described as falling into the void. The *I Am* consciousness freely falls into the void and reunites itself with the unlimited and undivided consciousness of the void, which is the experience of No-self.

Crossing the edge of the abyss and falling into the void is the nature of crossing over to the other side that is alluded to in the gateless gate paradox and the doors of perception riddle. One can only cross over if the doors of perception are cleansed of a sense of self. It is not possible to pass through the gateless gate unless one is without a sense of self. In a very real sense, the gate is the highest level of self with its inherent sense of beingness that one can ever have while one is

present to perceive one's world from the central point of singularity of that world. The gate only opens or becomes gateless, and one only passes through the gate, when one becomes selfless.

Unlike the journey to awakening, which is a journey made by a self within a time-bound world, this experience of awakening from delusion is outside of time. It is the experience of No-self, which is the experience of unlimited consciousness. The experience of self is always a limitation of consciousness that arises from the limitation of a mind, which gives rise to the flow of energy through a world and the animated forms of information we call mental concepts. In unlimited consciousness, there is no information, no energy and no concepts, not even the concept of self. There is only the unlimited, undivided, unchanging and uncreated emptiness of the void of nothingness. Unlimited consciousness is limitless, timeless, formless and selfless oneness.

In the language of Genesis, the mysterious deepness and darkness of unlimited consciousness is the source of the light of consciousness. The light of consciousness is divided from the darkness of the source with the creation of an observable world. That world is illuminated on a face of the deep, which is the bounding surface of space that is the nature of a mental screen that gives rise to all mental concepts. The light of consciousness is projecting mental images from the mental screen so that the images can be perceived. As that world is created, a presence of consciousness is divided from the deepness and darkness in order to illuminate and perceive that world, which is the spirit of God that moves over the face of the deep. To reunite itself with the darkness, that presence of consciousness must become willing to turn off the light of its consciousness and reenter the darkness. The spirit of God is always divided as a limitation of consciousness as its world is created on the face of the deep. To reunite itself with the deepness and darkness of its source, it must become willing to dissolve back into the darkness of unlimited consciousness.

### **Aside on Psychoanalysis: The Death Instinct and the Denial of Death**

There are a number of insights in psychoanalysis that go far beyond anything neuroscience has to say about the nature of the mind and the self. The best of these insights are Freud's recognition of a death-instinct that balances out the life-instinct, the object relations theory of how a body-based self-concept is emotionally constructed in the mind, the denial of death, and the essential role an observing ego plays in the resolution of inherently unresolvable emotional conflicts.

The awakening process only goes forward through a self-destructive process of ego-death that Freud called the death-instinct. All expressions of self-destructiveness, whether suicidal with the destruction of one's own body, or homicidal with the destruction of other bodies, arise from consciousness seeing the lie of consciousness falsely identifying itself with the central character of the virtual reality holographic movie of the world it is watching as images are projected from a mental screen to the central point of view of consciousness in the audience outside the screen.



Expressions of self-defensiveness arise when consciousness believes the lie of self-identification and feels compelled to defend the survival of its character in the movie as though its existence depends on it, while expressions of self-destructiveness arise when consciousness sees the lie as a lie, which results in hatred of the lie that fuels self-destructive expressions. One cannot free oneself from the emotional bondage of believing the lie with physical body death, since the body is just another image projected from the mental screen. What is necessary is ego-death, since the ego is at the root of the lie of self-identification as emotionally energized self-concepts are constructed in the mind and projected from the mental screen to one's point of view. One only believes the lie of self-identification because one really feels self-limited to the emotionally animated form of one's body as one perceives the emotional energy that animates body-based self-concepts. The only way one can stop believing the lie and free oneself from the emotional bondage of self-identification while the body still lives is through a process of ego-death.

In psychoanalytic theory, the mentally-constructed self-concept is understood to arise within a dynamic relationship of mental imagination as a mentally-constructed body-based self-image is emotionally related to the mentally-constructed image of some other thing that appears in the world one perceives. The theory of mental construction of self-concepts is called object relations. All the psychological problems and conflicts of the personality are inherent in the mental construction of the self-concept. The self can come into emotional conflict with others, but the self-concept can come into conflict with itself, as the self-image at one moment of time can come into emotional conflict with the memory of the self-image from another moment of time.

The purpose of psychoanalysis is to resolve emotional conflicts. The way conflicts are resolved is very interesting. Emotional conflicts are never resolved at the same level that they are created. Emotional conflicts can only be resolved if one sees things more clearly from a higher level. Psychoanalytic theory assumes there is an observing ego that observes the mentally-constructed self-concept. There is no good explanation for the nature of the observing ego or where it comes from, only that everybody has one. It is the observing ego that becomes aware of the emotional conflicts that are inherent in the mental construction of the self-concept.

As the observing ego becomes aware of emotional conflicts, it sees them as immature, like a baby that attaches itself to its mother and wants to control her behavior to force her to satisfy its desires. It also sees them as futile, since nothing can really be controlled. All things eventually resist any attempt to control them and the desire to control things is frustrated. The observing ego also comes to see all self-concepts as false beliefs, since it can never be any mentally-constructed self-concept it can observe. Once the immaturity, futility and inherent falseness of all self-concepts and the emotional conflicts that arise in them with the expression of the desire to control things is seen, the observing ego becomes willing to give up its desire to control things. This giving up is a kind of surrender. The self-defensive desire to control things is given up.

The observing ego surrenders when it 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 attempts to control them. The normal flow of things can no more be controlled than a tsunami stopped by holding up one's hand. Ultimately, this sense of futility turns into a sense of falseness. One surrenders when one sees that one is not a thing one is trying to defend.

Emotional conflicts arise from the desire to control thing. 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.

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. 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.

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.

As the observing ego surrenders and detaches itself from things, it comes to see things more clearly and with a sense of distance, like a movie it is watching. It sees that its character in the movie is afraid of death and non-existence, but when it detaches itself from its character, it no longer feels compelled to defend the survival of its character as though its existence depends on it. It becomes willing to just watch things play out in the normal way.

The observing ego becomes willing to let go. It emotionally detaches itself from things and sees things with a sense of distance. With emotional detachment, there is willingness to let go and relinquish the desire to control things. There is a sense of resignation as the observing ego becomes willing to 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. The desire to control things or defend oneself in a personally biased way can only create an emotional disturbance and make things worse. With detachment, the observer expresses no emotional bias, and just watches as things play out in the normal way. This willingness of the observing ego to detach itself from things, let go and give up its desire to control things is understood as a maturation or growing-up process that in psychoanalytic theory is called integration.