



# The View From the Field

## A Fundamental Understanding of Basic Principles of Quantum Physics as Related to Transformational Presence

by

**Alan Seale, PCC, CTPC, MSC**

Founder and Director of the Center for Transformational Presence

<http://www.transformationalpresence.org>

Adapted from Alan Seale's book,  
*Create a World That Works:*  
*Tools for Personal and Global Transformation*  
Published May 2011 by Weiser Books

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### A Fundamental Understanding of Basic Principles of Quantum Physics as Related to Transformational Presence

*I discovered the new way of doing science when I discovered spirit. Spirit was the natural basis of my being. The material world of quantum physics is just possibility. It is through the conversion of possibility into actuality, that consciousness creates the manifest world . . . The universe is self-aware, but it is self-aware through us . . . now that I recognized that consciousness was the ground of being, within months all the problems of quantum measurement theory, the measurement paradoxes, just melted away.*

—Amit Goswami, physicist  
author of *The Self-Aware Universe*<sup>1</sup>

Ancient wisdom traditions taught that if you want to understand the universe, you must first understand yourself. Visionary scientist and inventor Buckminster Fuller said, on the other hand, that if we want to understand the human condition, we must first understand the universe. Transformational Presence work involves tapping into and recognizing the deep soul wisdom within us as a part of the greater wisdom available through the all-pervasive vibrational field of energy known as the Quantum Field. In Transformational Presence development, we explore the inner world to understand the outer world, and the outer world in order to more fully understand our inner realms. The Principle of Correspondence (see the e-book *The Seven Hermetic Principles*), “As above, so below; as below, so above,” helps us understand that each tells us something about the other, and how each impacts the ongoing creation of the other.

In this e-book, we peer into the realm of quantum physics in order to understand some basic concepts of this fundamental reality. Not being a scientist, I’ve done my best to translate big concepts into simple and understandable language. This little book is

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<sup>1</sup> As quoted in the *What the Bleep? Study Guide*, p. 40. <http://twm.co.nz/goswami1.htm>.

not intended to be a scientific study but rather a very basic layperson's guide to understanding this complex and fascinating foundation of reality so that we may apply these principles to leadership and service. At times things may seem a bit technical, but stay with me. We are laying another important part of the foundation for Transformational Presence.

## **Classical Physics**

Let's start with a review of some basic laws and assumptions of classical physics that explain how our physical, three-dimensional, "real" world works. This review may seem very elementary or obvious, yet it gives us a context for understanding how these laws and assumptions have been challenged or simply do not exist in quantum theory.

First, classical physics assumes that the physical world is real as we perceive it, and that things exist whether or not we or any conscious being are present to interact with them. In other words, a chair in your living room is "real" as you see it, touch it, and feel it, and it exists whether or not you are at home to look at it or sit in it.

The laws of classical physics also assume that space is fixed, absolute, and measurable, and that time within that space is linear. This means that the chair occupies a precise space within your living room, and it has specific dimensions that can be measured. The chair was in that spot yesterday and last week, and will be there tomorrow and next week unless someone or some outside force moves it.

Second, the laws of classical physics state that objects or events must come into direct contact with one another in order to effect or influence one another. If objects or events are not in direct contact with one another, neither can have any influence or impact on the other. In other words, the sofa in your living room has absolutely no impact or influence on the chair unless the sofa is pushed against the chair and

therefore moves the chair. Even if this happens, this movement of the sofa and chair has no impact on the location or condition of the bed in your bedroom. The pieces of furniture in different rooms have no relationship to one another. In physics, this concept is known as “locality.” Anything that happens is “local” to that physical space and time and happens only in that space and time—nowhere else. Furthermore, classical physics tells us that the chair is in one specific location, and therefore not in another specific location. It can only be in one place at a time.

Third, a “cause and effect” sequence can only happen in a linear time frame with time moving forward. There is no other possibility. Time cannot move backward, nor can we rearrange time so that a sequence of events is altered. When the sofa pushes against the chair and the chair moves, thereby dragging the rug with it, this movement has now happened in that particular sequence. We cannot go back in time and instead push the chair against the sofa, or rearrange the sequence so that it begins by pulling the rug. Furthermore, this “cause and effect” movement of the chair, sofa, and rug is not retroactive—just because the furniture has been moved today, it does not mean that it was in its new arrangement yesterday. Yesterday the chair, sofa, and rug were all in their former arrangements. However, unless someone moves them again, they will now be in this new arrangement tomorrow.

Finally, classical physics tells us that everything in nature flows in a continuous, space/time dimension—that there are no “jumps” in space and time. This means that there are no realities other than this three-dimensional space and linear time. Therefore, it is not possible for time or space to be anything other than how we currently measure them in our material world. The chair cannot de-materialize from its current spot in your living room and instantly re-materialize in the bedroom. Nor can the chair be in one time frame now and in the next moment have moved to next week or last year. In the realm of classical physics there is only one dimension of time—this linear time sequence of

minutes passing into hours into days. Today cannot instantly become next week or last year. This moment in time can only be this moment in time.

As a Western culture, we live our daily lives from these assumptions, and, for the most part, they work well for us. That is, as long as we want to function on only one plane of existence—a plane where we can physically see, touch, feel, and experience only with our five outer senses. However, if we consider that perhaps there is more than this “seen” world—that there are other realities or possibilities happening beyond the seen world—we have to look beyond these classical assumptions. The discoveries of quantum physics show us that, while these assumptions have served us for practical daily living and the accomplishment of many great things, there is a whole other world that exists hidden beneath the surface of our three-dimensional reality—a world that includes radically expanded potential for how we live and create. And, if we become facile with it, this world offers a very different and exciting new paradigm for leadership and service.

Quantum physicists are quick to point out that the laws of classical physics are not discarded once you enter the realm of quantum physics. However, they only apply to the physical, three-dimensional reality. While classical physics would argue that there is only one reality or dimension of existence, quantum physics shows us that there are many realities, and that those realities operate by different sets of rules.

This is particularly important as we consider new paradigms of leadership and service. Solution-based practices, project development and management, and goal accomplishment are mostly based on the paradigms of classical physics and work primarily with the three-dimensional, physical reality. The starting place is the current reality. Transformational leadership and service, on the other hand, works with multiple dimensions and realities. Its starting place is potential. Solution-based or transactional practices rely primarily on the rational, intellectual mind, which operates in a classical

physics paradigm, while transformational work relies on the greater intuitive mind that has the ability to encompass the more expansive quantum physics paradigm.

## Quantum Physics

The early explorers of the quantum realm discovered that each time they asked a question of this new realm, the answer came as a paradox, and the more they strove for clarity, the stronger the paradoxes became. They finally had to accept that paradox is a part of the intrinsic nature of quantum physics. It is what is “normal.” It only appears to be “abnormal” when viewed within the context of classical physics.

For example, classical physics holds the belief that all things are separate from one another and have no relationship to one another unless they come into physical contact. Within this classical context, the statement, “I am an individual separate and distinct from the universe *and I and the universe are one,*” would be a paradox that could not be explained. However, within the context of quantum theory, this statement makes perfect sense. To the Hermeticists, it is the Principles of Mentalism and Polarity (see the e-book *The Seven Hermetic Principles*).

While you are reading this book sitting in a three-dimensional, either/or reality, engaging with the concepts through your rational-intellectual mind, the quantum world may seem paradoxical and not understandable. However, when you slide into a multi-dimensional, “both/and” reality through your intuitive mind, it can all begin to make sense.

If this is confusing, again just stay with me. One of the most powerful tools for sliding into a multi-dimensional realm is the question: “What if?” When something is really hard to understand, simply asking “What if this was possible?” can often help you slide into a place where you can at least consider the ideas and play with them.

Allowing yourself to play with ideas is really important here, so that you don't get bogged down in rational analyzation. Your intuitive mind already lives in this quantum world of Consciousness. Remember that the intuitive mind is the mind of the soul, and the soul lives both in your physical body and out in Consciousness at the same time. Asking "What if?" can open the door to your intuitive intelligence. Asking "What if?" takes you from horizontal awareness into the vertical.

Let's look at these laws and assumptions of classical physics and see what those early quantum explorers discovered. The first realization was that things are not fixed and solid, but instead are made up of constantly vibrating, moving, and changing packets of light called quanta. In fact, those vibrating packets of light are a part of an enormous, undulating, pulsing sea of energy now known as the quantum field—a field of energy that surrounds us, is within us, connects us with all of creation, and has intelligence. Edgar Mitchell, former astronaut, moon explorer, and founder of The Institute for Noetic Sciences describes it as "an intelligent, self-organizing, creative, learning, trial and error, evolving, participatory, interactive, evolutionary, nonlocally connected system."<sup>2</sup> Lynne McTaggart, author of *The Field: The Quest for the Secret Force of the Universe*, writes, "Human beings and all living things are a coalescence of energy connected to every other thing in the world. This pulsating energy field is the central engine of our being and our consciousness, the alpha and omega of our existence."<sup>3</sup>

A "field" is an invisible energetic space created by the person, situation, condition, or idea at the center of that space. British biologist Rupert Sheldrake defined fields as "nonmaterial regions of influence—invisible forces that structure space or

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<sup>2</sup> From the Institute of Noetic Sciences Shift in Action member audio program 2007, track 28.

<sup>3</sup> McTaggart, p. xiii – xiv.

behavior.”<sup>4</sup> The earth’s gravitational field is one example: we can’t see it, but it is nevertheless real, and we all accept it as real.

The quantum field is everywhere. Quantum mechanics, the study of the behavior of the quantum field, tells us that at the quantum level everything is actually made up of mostly empty space, *and* that empty space is teeming with activity. The quantum field is a dynamic web of inseparable energy patterns encompassing the whole universe. Through this web, everything is connected to everything else.

So you might ask why aren’t we aware of this quantum field in daily interactions with our environment? In simple terms, we deal with matter in its gross form—billions of particles of matter joined together in interrelation forming what we perceive as solid objects. However, if we were to examine those objects at the particle level, we would see that there is an entirely different reality hidden inside what we consider to be the “real” world. That hidden world is composed of quanta vibrating at different frequencies. When these light packets vibrate very slowly, they might join together to form rocks or minerals. When the light vibrates at a somewhat higher frequency, it might take form as plants, animals, or people. When light vibrates so fast that we are no longer able to see it, it could take the form of radio or television wave signals. However, it is all still vibrating light.

In our three-dimensional reality we observe a ball flying through the air. However, if we could see into the quantum reality, we would actually observe a series of quanta, or bursts of light, in rapid succession, similar to the many still frames that go together in quick succession to create a movie. Just as when watching a movie, our eyes actually see the individual frames, but the brain averages them all together to create an illusion of movement. So it is with the ball flying through the air. In the three-

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<sup>4</sup> Rupert Sheldrake, as quoted by Joseph Jaworski in his book *Synchronicity: The Inner Path of Leadership*, p. 149.

dimensional reality, the mind averages together the series of quanta to create our perception that the ball is flying through the air. Therefore, when we observe a ball flying through the air, you could say that we are actually observing two realities at the same time. In the physical, three-dimensional reality we see a solid object—a ball—flying through space and time—the ball appears to be constantly changing location and there is an elapse of time from when the ball began its flight until it falls to the ground. Yet in the quantum reality, there is only a series of bursts of light.

The classical physics concept of “locality” is contrasted in quantum physics with “nonlocality.” At the quantum level, rather than particles being fixed in a specific location in space and time, everything exists as vibrating information. This vibrating information is nonlocal, which means that it exists everywhere throughout time and space simultaneously.

Nonlocality also tells us that objects that appear to be separate are actually connected by a web of energy that is everywhere at the same time. This means, in contrast to classical physics’ locality, that things *do not* need to have physical contact in order to impact one another. Quantum particles can influence one another instantaneously, regardless of their proximity, with no physical exchange of energy or force. It seems that once quantum particles have come into contact with one another, they remain connected energetically even when separated physically, so that the action of one immediately influences the state of the other. Imagine two particles that have been together as a pair, forming a two-particle system. The particles each spin in a particular direction. If you separate the particles and take one to Paris and one to San Francisco, and then change the direction of the spin of the particle in Paris, the particle in San Francisco will simultaneously change its spin direction. In quantum physics, this is known as Bell’s Theorem, and it gives us proof of the fact that all matter is at the same

time separate and connected.<sup>5</sup>

Communication between objects in the quantum field happens instantaneously and automatically. Deepak Chopra invites us to take our understanding of this a step further, beyond “communication” into “communion.” He explains that communication implies an energy or information *exchange* between separate entities. However, in a nonlocal environment there is no separation and no energy/information exchange. Everything everywhere is in communion within the oneness.<sup>6</sup> This helps explain how you intuitively know who is calling when the phone rings, or how a mother senses that something has happened to her child at the precise moment that it happened, even though the child is now an adult and lives thousands of miles away. We will explore the relationship of these principles to intuition and mystical experience more fully in the next chapter.

## **Waves and Particles**

We have established that matter, at its most fundamental level, is made up of vibrating packets of energy. These packets of energy sometimes behave like particles, taking on a specific form and occupying a specific time and space. At other times, they behave like waves of energy, vibrating over a larger space and time and taking no specific form. These waves are actually pure potential—energy not yet taking on a specific shape or form but capable of taking any form.

The quantum field is made up of waves of constant and continuous interactions between particles. A paradox arises here from the classical physics perspective because packets

wave—pure potential without specific form, time, and location

particle—three-dimensional reality in specific form, time, and location.

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<sup>5</sup> Jaworski, p. 79.

<sup>6</sup> From the Institute of Noetic Sciences Shift in Action member subscription audio program, 2007.

of energy can actually behave like both wave and particle at the same time. This is known as wave-particle theory. In wave form, these quantum packets are nonlocal. Until they collapse into particles, they do not have a specific time-space location. They are everywhere at the same time. Once they collapse into particles, they have time-space location.

Physicist Werner Heisenberg gave us another key to understanding this wave-particle concept through what has come to be known as the Heisenberg Uncertainty Principle. This principle states that you cannot know the location of a particle and at the same time know how fast it is traveling or spinning. When you plot a specific location of a particle, then in that moment there is no movement. Since it is standing still, you cannot measure its speed. On the other hand, if you are measuring its speed, then the particle is in motion and therefore you cannot pinpoint a specific location. You can only observe and predict its trajectory.

The Heisenberg Uncertainty Principle can help us in understanding how we view process in projects. When the energy is high and things are happening quickly, at any one moment you cannot pinpoint exactly where things are. You might say that they are “in flux,” “in transition,” or “coming together,” but you can’t state precisely where things are. Things might even feel somewhat chaotic or out of control—in a flow and having a life of their own. What you do have a sense of is how fast or slow things are moving as well as what is starting to unfold. This is the project in wave form. What you’re perceiving is the *potential* of the project as it begins to take form.

On the other hand, when you know exactly where things are in every moment in a project and are in complete “control” of the creative process, chances are things are not in a flow, flux, or transition. They are standing still. Essentially, they have “collapsed” into particle form. The project and its outcomes have a specific place in time and space.

The Heisenberg Uncertainty Principle tells us that if we really want to see movement, creativity, change, and transformation, we have to be willing to not know precisely where things are all the time. We have to surrender to the movement. In other words, we must stay “plugged in” to potential.

### ***INQUIRY: The Heisenberg Uncertainty Principle***

Bring to mind a project in which you’re currently involved. Would you say it is in wave or particle form? Are you allowing it to be in creative flow and flux or are you holding on tightly to control the process? Or is it in so much flow that nothing is coming into form? Is it time to move it from a place of potential (wave) into something more concrete (particle) or is it, perhaps, time to return to the original potential of the project in order to reinvigorate it and those involved?

### **The Participant-Observer**

So what causes the energy packets to go from wave into particle? Here we introduce a concept known in quantum physics as the participant-observer. In Lynne McTaggart’s words, “an event in the subatomic world exists in all possible states until the act of observing or measuring it ‘freezes’ it, or pins it down to a single state. This process is known as the collapse of the wave function, where ‘wave function’ means the state of all possibilities.”<sup>7</sup>

For example, let’s say you are going to build a house. In the “wave” of potential, there are an infinite number of possible designs you could choose or create for your new

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<sup>7</sup> McTaggart, p. 103.

house. Until you make a choice, theoretically any of the infinite number of designs are possibilities. However, at the moment that you make a choice and start to build, the “wave” has collapsed into “particle”—a specific form that is just one of the many possibilities is now taking shape.

When we participate with or observe anything in wave form, it collapses from wave into particle form. According to quantum theory, when we are not participating in or observing a particular aspect, it returns to wave form—pure potential. There is no space (location) or time information available. The wave state is the immeasurable potential for all that was, is, and will ever be. In the wave state there are no individual or separate objects, thoughts, or people. It is all pure vibrating energy that has the potential to collapse into any particle or form. How we choose to engage the wave and give shape to the potential by collapsing wave to particle determines the form that will be created.

A key difference between the laws of classical and quantum physics is the role of the observer within “reality.” In classical physics, the observer is the one performing the experiment or engaged with the phenomenon in the moment. That observer is considered a completely separate and uninvolved entity, observing a universe that, according to its principles, exists and evolves whether or not the observer is present.

Quantum physics, on the other hand, recognizes the universe as a sea of vibrating energy rather than a collection of fixed matter, and that because everything is in constant vibration and therefore is not fixed, it exists as potential rather than as a set reality. It was discovered, however, that as soon as a wave of potential in this great sea of energy is observed or measured in some way, it collapses into a fixed form.

Therefore, quantum theorists began using the term “participant-observer” rather than just “observer.” Observer implies that the person has no influence on what she is observing. However, because it was discovered that it is the observer who, in fact,

chooses what form the potential will take, she becomes a participant in creation as well as an observer. The laws of quantum physics therefore state that there is a relationship between what is now being called the “participant-observer,” and that which is being observed. *It is the act of observing that causes the wave to collapse into particle, the potential to take form.* Until the sea of potential is observed, it has no set physical form. Until potential has a three-dimensional partner—an observer—it cannot manifest in physical form.

This discovery shattered former beliefs about the nature of reality. It became clear that the *conscious awareness* of the participant-observer is what brings the observed into being. Nothing exists at the quantum level as an actual thing unless we have some relationship to it or perception of it. This means that at the quantum level—the building blocks level—we are literally creating our world minute by minute, hour by hour, day by day. In fact, quantum physicists tell us that our universe is being re-created tens of thousands of times every second.

The participant-observer principle is very important for us to understand in doing transformational work. Wave collapsing into particle can be compared to turning potential into result, or stepping from idea into action. As we perceive the potential available to us, *we must realize that the potential needs us as participant-observer to partner with it and bring it into form.* Furthermore, nothing is pre-determined in the realm of potential. A potential may exist, for example, for a dynamic new business to be created and service to be provided, but until you partner with that potential as participant-observer and collapse the wave (potential) into a specific particle (form), nothing has been created. Transformational work includes helping those we serve tap into the potential (wave), perceive the possibilities of how the potential could be realized, and then choose one and bring it into form (particle).

Again, in a classical physics context, we only have awareness of the current

reality or form. We must then take that reality or form and work with it to change it into something else if it is not to our liking. We have no choice but to work with the current reality as best we can.

In a quantum physics context, however, we are a participant as well as an observer. And when something is not working, we can let the current reality (particle) dissolve back into potential (wave) and unlimited possibilities to discover what other options are available or to find the missing piece. Our current circumstance or situation is only one of many possibilities. We get to choose which possibility we will partner with and co-create a new reality.

The wave-particle principle also tells us that possibilities of the past, present, and future all exist in wave form in the quantum field. As we observe the past, we bring it into form as a particular memory. In the same way, as we observe the future we bring it into form as well, co-creating the future with the wave of potential. Time is not limited to a fixed, linear path. It can also be circular (circling back on itself) or simultaneous. In addition, each participant-observer observes from a different perspective and therefore experiences a different reality and sequence of events.

Ervin Laszlo, recognized as the founder of systems philosophy and general evolution theory, believes that the fundamental wave-particle level of the quantum field is a holographic blueprint of the universe for all time—past, present, and future. We will talk about the holographic principle in the next chapter. However, for now, assuming that Laszlo's belief is true, then theoretically we should be able to access information from the future as well as from the past. We can remember the past, so why should we not be able to remember the future? Both are present in the quantum field.

Wave-particle theory helps us understand what is actually happening when we remember the future. We begin by tapping into the wave, which takes us into a simultaneous time dimension where past, present, and future co-exist. As we begin to

remember the future, what we are actually doing is perceiving possible wave collapses—possibilities of how the wave could actually collapse into particle, creating a specific outcome in our three-dimensional reality. Because it is our observance of the wave that causes the collapse, we can observe many possible future outcomes in our linear-time reality, choose the one we wish to manifest, and partner with that potential to bring it into form.

### ***INQUIRY: The Participant-Observer Principle***

- In what situations or circumstances are you acting merely as an observer? In what situations are you engaging as a participant-observer? How are your experiences and results different depending on which approach you choose?
- How does your experience of life change when you shift from being only an observer to being a participant-observer?
- In leadership or service, what is the difference between being a participant-observer and being only an observer?
- How can the idea of multiple realities within the same occurrence inform your leadership or service, recognizing that each person within a situation may experience a different reality of it?
- How can moving from particle back into wave provide access to other options within a challenge?

### **Understanding Quantum Shifts**

In the quantum realm, particles can jump from one orbit to another, from one

reality to another. They can disappear from one place and time and reappear in another, indicating that there are multiple realities. Therefore, in the quantum realm, space and time are not smooth and continuous as they are in the three-dimensional realm. Lynne McTaggart describes quantum particles as omnipresent. "For instance, when transiting from one energy state to another, electrons seemed to be testing out all possible new orbits at once, like a property buyer attempting to live in every house on the block *at the same instant* before choosing which one to finally settle in. And nothing was certain."<sup>8</sup>

You can only predict where quantum particles might settle into a particle state. There is no guarantee of anything. Rather than a universe of static certainty, at the most fundamental level of matter, the world and its relationships are uncertain, in a state of pure potential, of infinite possibilities.

The term "quantum leap" has become a part of mainstream vocabulary in recent years yet is rarely defined. The word "quantum" literally means "whole." When something makes a quantum leap, it jumps, whole and complete, from one reality to another. There is no sign of a pathway or how it got from one reality or position to another, nor is there a time lag. It just simultaneously disappears from one place and reappears in another.

As humans, we are capable of making quantum leaps from one belief to another, one thought to another, one behavior to another, or from one possibility to another. We are capable of instantaneous transformation if we choose it. We don't have to travel a long, circuitous route of change, consideration, and struggle. We can choose to make shifts instantaneously. Quantum shifts can occur within teams, organizations, individuals, families, and our bodies. They are only limited by our lack of belief, and even then we are sometimes caught off guard when a quantum leap occurs that we

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<sup>8</sup> McTaggart, p. 10.

would never have thought possible.

### ***INQUIRY: Quantum Shifts***

- When have you experienced a quantum shift in thought, belief, or behavior, or observed such a shift in someone close to you? What do you know about how it happened?
- Where in your life or work would you like to make a quantum leap in thought, belief, behavior, or possibility? What would that transformation look like?
- What are your beliefs around the possibility of quantum shifts?
- How could the concept of quantum leaps inform and embolden your leadership or service?

## Comparison Table

### Fundamental Principles of Classical and Quantum Physics

<b>Classical Physics</b>	<b>Quantum Physics</b>
<p>The physical world is real as we perceive it in a 3-dimensional reality. It exists whether or not anyone is observing or participating in it.</p> <ul style="list-style-type: none"> <li>• Space is fixed and absolute.</li> <li>• Time is linear.</li> <li>• The observer is completely separated from what is happening.</li> </ul>	<p>The real world exists as waves and particles rather than as solid objects. It goes in and out of physical form.</p> <ul style="list-style-type: none"> <li>• The fundamental particles of the physical world are not fixed, but instead constantly moving and changing. That movement and change is affected by how we observe it.</li> <li>• Time is nonlinear.</li> <li>• The observer is an active participant in what is happening.</li> </ul>
<p>Locality—Objects have a specific time and space location and can only be in one location at a time.</p>	<p>Non-locality—Particles do not have a specific time and space location, but instead are everywhere simultaneously.</p>
<p>Cause and effect can only happen in a linear time frame with time moving forward. Objects can only be influenced by direct contact. If objects are not in direct contact with one another, they have no impact or influence on one another.</p>	<p>Cause and effect does not necessarily apply. Particles that appear to be separate are actually connected instantaneously by a web of energy. Physical contact is not necessary for one object to influence another.</p>
<p>Everything in nature flows in a continuous space-time dimension. There are no jumps in time and space.</p>	<p>Particles can jump from one reality to another. Therefore, time and space are not smooth and continuous. A sequence of events depends on the context and perspective of the observer. Time can be linear, circular, or simultaneous.</p>

Solution-based and/or transactional leadership and service has been grounded in a classical physics paradigm.

Transformational leadership and service is grounded in a quantum physics paradigm.

## The Quantum Field, Intuition, and Mystical Experience

Scientists don't really know what energy is, except that it exists, can be measured, and forms matter. Patterns of energy go together to form information. In the quantum field, information is the way that knowledge is organized. Intelligence is the measure of the ability to learn or understand from experience and process information.

Many scientists believe that there is an inherent intelligence in the quantum field. The information exchanged within the field is constantly being processed by the field and all of its components, which includes all forms of life. And that includes us.

At the quantum level, all objects and life forms are vibrating fields of energy. Intermixed in that energy field is stored information that carries the history of that particular object or life form. The ancient Eastern traditions speak of this stored information as the Akashic Records, the etheric records of all time. You might think of the Akashic Records as a massive virtual library containing all the knowledge, wisdom, and information about all that has ever been, is now, and will ever be. As we develop our intuitive senses, we find that we are increasingly able to access this information. The existence of the Akashic Records can be explained as the result of the energetic emissions of all forms of creation. Its information is available in the quantum field, and because it is nonlocal, it is available anytime and anyplace to those who have refined their intuitive skills to the level where they can perceive these energetic emissions. This same concept explains such phenomena as remote viewing—the ability to tune into and observe objects that are distant in time and space from your current physical location.<sup>9</sup> Looking into the past or future involves tapping into the stored information that exists and “reading” its information, hearing its message, perceiving its history.

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<sup>9</sup> For more information, see Jim Schnable, *Remote Viewers: The Secret History of America's Psychic Spies*. (New York: Bantam Doubleday Dell, 1997); David Morehouse, *The Remote Viewing Training Course*. (Boulder: Sounds True, Inc., 2004).

Walter Schempp, a mathematics professor at the University of Siegen in Germany, discovered that the quantum field is a vast memory store, which led him to the theory that memory does not reside in the brain, but rather in the quantum field. From that discovery, scientists and theorists went on to propose that the brain is merely a retrieval mechanism—that it retrieves information from the quantum field where it is actually stored.<sup>10</sup> This would explain how one thought or stimulus can be the catalyst for an explosion of memories, inspiration, ideas, and comprehension. It would also explain instant memory recall—that we don't have to sort through a vast “filing system” of memory to locate the desired memory or information. Our brains simply tap into the nonlocal quantum field and retrieve the information we need.

We live in a holographic universe. A hologram is a pattern that is whole and complete within itself while at the same time being a part of a larger pattern that is whole and complete within itself, which is in turn a part of a larger pattern that is whole and complete, and so on. In a hologram, every part contains the essence of the whole. Each piece of a holographic picture contains the essence of the entire picture.

We tend to think of the mind as functioning in two modes: intellectual and intuitive. Generally speaking, rational thinking has been considered the realm of science, and intuitive thinking the realm of art, mysticism, and religion. The Eastern traditions have always valued intuitive thinking, while in the West, at least since the 17<sup>th</sup> century, intellectual and scientific knowledge has been considered the only true, credible knowledge.

Psychic and mystical experiences have been reported throughout history and in all cultures. Many laboratory experiments have been conducted in an attempt to explain these phenomena. These experiments continue today in places such as the Institute for Noetic Sciences Research Lab in Petaluma, CA. Studies of near-death experience have

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<sup>10</sup> McTaggart, p. 95.

also yielded very compelling evidence supporting the ideas of a consciousness and an intuitive process.

This evidence has long been controversial. However, the flexibility of time and space, nonlocality, the ability of one thing to influence another across space and time—all attributes of the quantum field—offer explanations for how these phenomena can exist.

All this is to say that the pioneering research in quantum physics in recent years is now bringing us back to an “all is one” worldview. These discoveries support many of the universal beliefs about the nature of reality held by the ancient spiritual traditions. Breakthrough research is bringing us new knowledge that transcends our mechanistic view of the world and our linear understanding of time and space. It is opening new doors of understanding in mind-body connection and the relationship between consciousness and the three-dimensional world in which we live. Many scientists, philosophers, and thought leaders, including the late David Bohm, Fritjof Capra, Amit Goswami, Gregg Braden, Edgar Mitchell, Deepak Chopra, Michio Kaku, Bruce Lipton, Stephen Hawking, and Rupert Sheldrake, to name only a few, have spoken of the Quantum Field in ways similar to how ancient mystics and teachers of the world’s major religions as well as indigenous traditions have spoken of God or the Creator. “Everywhere in time and space; all knowing intelligence; the void out of which all things come”—are we describing God or Consciousness or the quantum field? Or are we speaking of all of them as one? One currently emerging thought is that Consciousness is the creative and sustaining force of all of creation, and that the Quantum Field is born out of the greater Consciousness. Consciousness, therefore, is recognized as the web that connects everything in the Quantum Field.

Accepting that our mind is actually a field of energy that encompasses the body and the space surrounding it and accesses the Quantum Field, then our conscious

awareness can also expand to become one with the Quantum Field. What we have thought of as psychic powers or mystical experiences are actually the result of our expanded awareness into the Quantum Field that has been there for us all along. It is just that we, in the Western rational-thought paradigm, have forgotten how to expand our awareness. Opening to intuitive guidance and understanding is actually the most “real” we can get because then we are tapping into the Quantum Field.

### ***INQUIRY: Intuitive and Mystical Experience***

- What new insights are you gaining into your own intuitive and mystical experiences?
- How can this “quantum” understanding of intuitive and mystical experience and energy as information inform your leadership and service?

### **The Technology of Miracles**

Synchronicities are the coming together of things in unexpected or unplanned ways. Miracles are the results of synchronicities, usually against significant odds, at least in a three-dimensional context. Yet at the quantum level, miracles and synchronicities are simply Consciousness doing what it does. At that level, all of the components are together in the oneness. The energetic forces (waves) are all out there in the greater Consciousness just waiting to be engaged (which collapses the wave into particle). What if we engaged the waves of potential? What if, in fact, we accepted that our energy fields are instruments through which synchronicities and miracles can happen every day?

Through understanding and embracing the oneness of all and the function of potential (wave) coming into form (particle), we take the first step into the technology of miracles. We are not talking about magic or the supernatural. We are talking about removing anything that separates you from the miracle. When you fully embody the energetic essence of the miracle, you begin *living* the miracle. *Living* the miracle greatly increases the odds that the wave of potential will collapse into the particle of miracle in three-dimensional form.

If we accept that on the quantum level we are one with all that is, which includes the potential for what could be, then we are therefore one with what could be called the miraculous. Miracles are potential turned into reality, usually against powerful three-dimensional-world odds. But, you can choose to expand your awareness beyond what you think you know, beyond your current context, and access possibilities and potential you never knew existed. Living the miracle is not a guarantee that everything will unfold as you desire—there are often many factors involved—yet when you step into and become one with “what wants to happen,” you accept your responsibility and claim your role in bringing potential into form.

Biologist and epistemologist Francisco Varela speaks of the state of synchronicity, miracles, and our “open nature:”

“[This] is in the spiritual realm—spiritual because it has to do with human hearts. When we are in touch with our ‘open nature,’ our emptiness, we exert an enormous attraction to other human beings. There is great magnetism in that state of being which has been called...‘authentic presence.’ Isn’t that beautiful? And if others are in that same space or entering it, they resonate with us and immediately doors are open to us. It is not strange or mystical. It is part of the natural order.

Those that are in touch with that capacity are seen as great warriors in the American Indian tradition, or as Samurai in the Eastern tradition. ... There is great danger if we consider these people to be exceptional. They are not. This capacity is a part of the natural order and is a manifestation of something we haven’t seen previously, not something we do not have. This state is available to us all, and yet it is the greatest of all human treasures.

This state—where we connect deeply with others and doors open—is there waiting for us. It is like an optical illusion. All we have to do is squint and see

that it has been there all along, waiting for us. All we have to do is to see the oneness that we are.”<sup>11</sup>

What if the miraculous was just beyond our current awareness—just inches beyond our grasp? When we embody the Quantum Field and become one with it, then we are one with the miraculous. We *are* the miraculous—living the miraculous every moment of every day. In Peter Senge’s words, “If we were not making such an immense effort to separate ourselves from life, we might actually live life day to day, minute by minute, as a series of predictable miracles.”<sup>12</sup>

### ***INQUIRY: Predictable Miracles***

- What would it mean to you personally to live your life as a series of predictable miracles?
- How can this understanding of miracles and synchronicity inform and empower your leadership and service?

### **The Quantum Nature of Transformational Presence**

What do these laws of quantum physics mean for us in a solid-object world of space and time? How can they inform a next step in the evolution of personal presence? The more you play with these ideas and embrace the concept that at the quantum level nothing is as it appears in the three-dimensional level, the more you are aware of multiple realities at once. There is the solid-object, three-dimensional reality which we might think of as the product or results reality, and there are quantum realities

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<sup>11</sup> As quoted in Jaworski, p. 179 – 180.

<sup>12</sup> As Peter Senge wrote in the introduction to Joseph Jaworski’s book, *Synchronicity*, p. 14.

where everything is energetic potential. Nothing exists as form in specific space and time in this quantum reality until we choose to engage it and participate with it for the creation of something new in the three-dimensional reality. So you could think of the quantum reality as a potential/creative reality and the three-dimensional world as a fixed-form reality.

Solution-based practices in leadership and service primarily engage the three-dimensional reality, trying to change or influence fixed objects or fixed realities, sometimes requiring huge effort and long periods of time. In transformational work, creation, planning, and guidance all begin in the potential/creative reality. When we work in the quantum world of potential and creation, nothing is fixed—everything is in wave form just waiting for us to interact with it and create a new three-dimensional reality. The potential/creative reality then continues to be the guiding force for reaching the desired outcome in the three-dimensional, fixed-form reality.

The universe is about relationships. In physicist and systems theorist Fritjof Capra's words, "Quantum theory forces us to see the universe not as a collection of physical objects, but rather as a complicated web of relations between the various parts of a unified whole. . . . It has come to see the universe as an interconnected web of physical and mental relations whose parts are only defined through their connections to the whole."<sup>13</sup>

So it is with transformational leadership and service. There is a saying: the whole is equal to or created by the sum of its parts. However, I invite you to look at the relationship between the whole and the parts differently. In a transformational paradigm, the whole creates the parts rather than the parts creating the whole.

Creation, accomplishment, and manifestation are not about the parts by themselves; they are about the whole and the relationship of all the parts to that whole.

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<sup>13</sup> Capra, p. 138, 142.

Life and leadership involves letting the whole, or the potential for what the whole can be, inspire the parts so that they can come together to realize the potential. In this way, each of the parts contains the essence of the whole.

Working from the potential whole and the unfolding relationships between all the parts leads to amazing synchronicities. We have said that synchronicities occur because everything is connected to everything else in the Quantum Field. They may appear to be random, but it is actually through the intricate web of connection that everything is drawn together into one. All of the pieces that come together in synchronicity are actually connected parts of a greater whole.

Related to synchronicity is the concept of critical mass, or to use Malcolm Gladwell's term, a "tipping point" of thought.<sup>14</sup> Critical mass describes what happens when a shift in consciousness, attitude, or behavior is experienced by enough people that the consciousness, attitude, or behavior of the whole population begins to shift. Those few people who initiate the shift are a part of the huge web of Consciousness that makes up the Quantum Field. Therefore, when those few make a shift, it changes the whole, because all the parts are representations of and connected to the whole.

How does that happen? It happens through the holographic nature of the universe. Let's look at the holographic principle a little deeper.

At some point in your life you have probably stood in a three-way mirror in a clothing store or tailor's fitting room and seen how the image of your body repeats an infinite number of times in the mirror's reflection. Using that memory as a context, imagine that you are completely surrounded by mirrors—six panels around you as well as a mirrored floor and ceiling. The image of your body is now reflected in every direction out to infinity. This is a very simple metaphor for a holographic universe.

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<sup>14</sup> Malcolm Gladwell explores many ways in which critical mass shows up in our world in his book *The Tipping Point*.

Whatever is the center object is immediately reflected out through the universe to infinity through the endless mirror reflections. Any change in the center object is also immediately reflected to infinity. Therefore, the image is nonlocal in that it exists everywhere at once, and there is no time lag between when the change occurs in the center object and when it is reflected to infinity. The greater the number of people who reflect a specific thought, belief, or behavior out through Consciousness, the stronger that energy becomes. Eventually, the tipping point or critical mass is reached and the thought, belief, or behavior of the whole population begins to shift.

There are varying figures out there as to the exact percentage of a population it takes to reach critical mass. At one time it was considered to be ten percent. However, in more recent studies cited by Gregg Braden, the number of people required to begin shifting behavior within a population was determined to be the square root of one percent of the population. Therefore, in a city of one million people, it only takes 100 people to begin a significant shift in the mass consciousness of the city. In his book, *The Isaiah Effect*, Gregg Braden cites a number of experiments showing remarkable results from mass prayer. In September 1983, studies conducted in Jerusalem showed significant positive impact of intentional prayer and meditation on violence there. In 1972, studies showed a statistically measurable reduction in crime in 24 cities in the United States when as few as one percent of the population engaged in a specific meditative practice.<sup>15</sup>

Again, the web of Consciousness and the holographic principle explains how this tipping point can be reached. All of the people engaged in the new thought or behavior are a part of the Quantum Field that is held together by the web of Consciousness. Everyone in the population is connected to everyone else. Therefore, when enough people make a shift in their thinking or belief, the mass consciousness

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<sup>15</sup> Braden, Gregg, *The Isaiah Effect*, p. 235 – 237.

begins to shift in the same direction because all are a part of the one.

The more exploration and experimentation continues in quantum mechanics, the more questions arise. Much of what is being presented by researchers as possibilities—especially in the relationship between the mind, thought, Consciousness, events, circumstances, and time—is still being debated by mainstream scientific thought. Yet the evidence for the existence of an infinite web of connection between all that is, and a Consciousness that is constantly creating and sustaining the Quantum Field is extremely compelling. Admittedly, I am perhaps pre-disposed to this view of the universe because of my many years of study of the ancient mystery schools and practice in the spiritual and Consciousness realms. But, as many scholars, philosophers, and quantum theorists have stated, the evidence is growing that the Quantum Field is closely related to what the ancient sacred texts call God and I am calling Consciousness. Through spiritual and/or introspective practices, we can reach the deep stillness within where we can then know and experience our oneness with all that is. In that knowledge and experience we recognize that our true nature is pure Consciousness, the creating and sustaining force of all. And when we stand in Transformational Presence, it is in this Quantum Field and pure-Consciousness space that we live, create, and work in order to realize our greatest personal potential and the greatest potential for those we serve.

### ***EXPLORATION: The Holographic Principle at Work***

Bring to your awareness a project in your life or work. Consider this project from the perspective of the present moment reality where the project has yet to be accomplished. Imagine the steps that you will probably have to take in order to accomplish your goal. Imagine each step standing on its own—one piece that, when joined together with others, you hope will lead

to the outcomes you desire. Notice how it feels to consider the steps as building blocks that you hope will eventually lead to success.

Now take a few deep breaths and shake out that energy from your body. Then move to another spot in the room or change your physical position. From this new position, imagine your project as completed and successful. Feel the energy of the completed project. How would you describe it? What has happened as a result of the project being completed? You are standing in the energy of the completed whole.

Remaining in that energy, ask the project to show you the steps that led to its completion. Ask it to show you how you got there, who was involved, where the resources came from, the order of the steps you took.

Notice how it feels to work from the completed whole, letting the whole create the steps or the parts. How is this different from creating the parts one at a time as separate building blocks?

How can you approach other projects by letting the completed whole create each part, step, or goal?

Taking this a step further, consider the eight-sided mirror and the holographic principle. What do you choose to place in the center of the mirrors as the energy to be instantly reflected throughout infinity? What would be the difference between placing the energy of the completed project in the middle as opposed to the individual steps you might take to get to an end result?

## Life As An Open System

Physicists describe our quantum universe as “open and insubstantial,” meaning that the universe is made up of matter in motion and therefore fundamentally has no substance or definitive solid form. It is constantly shifting, transforming, becoming. As we move from the quantum realm toward the three-dimensional realm, things start to become “substantial” in nature. They take on density, mass, and form. How fast, slow, or obvious that change occurs is relative to the density and mass of the matter.

For example, a thought has no density or mass, so our thoughts can shift quickly. However, a paradigm or belief is a thought that has become anchored in our energetic structure. Therefore, the time and focus necessary to shift that belief depends on how deeply it is embedded in the physical and emotional structure of our life and how complex and layered that structure is. A belief or habit that has been reinforced on many levels over a lifetime could be more challenging to shift than a belief you adopted last year or a habit or practice you adopted last month.

Another consideration is the number of people involved in the shift. An individual can experience transformation and effect change in their lives relatively quickly if they are open and willing to transform. In a small business, it might take somewhat longer to make changes, yet when only a few people and/or systems are involved transformation can still occur in a relatively short period of time. With a multi-national corporation, on the other hand, it is probably going to take much longer for change to move through the entire organization because of the great numbers of people, systems, and cultures involved.

However, if we move back to the quantum realm and work with the business or multi-national corporation at the level at which it is open and insubstantial, theoretically change and transformation can happen much more quickly. In fact, at the quantum

level, the change is nonlocal, so it happens everywhere instantaneously. Coming from a classical, three-dimensional perspective, understanding this would require a significant paradigm leap. But what if we could go to the quantum level to effect change and therefore experience the result of that change immediately?

This would, of course, be much easier if everyone in an organization was skilled at reading energy and creating change or shifting paradigms at the quantum level. So, what if one role of leaders today was to first help everyone they serve *experience* working at the quantum level, and then develop these quantum skills to use in day-to-day operations? How would companies, organizations, communities, and governments operate differently? What could be accomplished when all decisions, policies, and actions were made from this quantum awareness?

The human family is an open system. Like everything else, we are also made up of matter in motion—vibrating energy—and are therefore insubstantial. Anything that happens to one of us impacts all of us on some level. Anything that happens to one organization impacts all organizations. Because of the quantum web of connection between all members of the human family and all organizations or cultures, experiences of anyone or any group is nonlocal. Consciously or subconsciously, we all share every experience that any one of us has. The more expanded our awareness, the more conscious recognition we can have of a nonlocal experience that has come through one yet impacts all.

As individuals we are at different levels of mental, emotional, and spiritual awareness. Our individual levels of awareness are reflected in vibrational frequencies. A narrow range of awareness, such as represented in self-centeredness with no concern or thought for anyone or anything else, would be reflected in a lower vibrational frequency. A greatly expanded awareness of how all of life is interconnected and interdependent would be reflected in a much higher vibrational frequency. The

frequencies of our individual awareness go together to form the overall vibrational frequency of the mass consciousness. Therefore, whether we are aware of it or not, and whether or not it is our intent, each one of us is an active participant in the co-creation of our mass consciousness. Although we are conditioned to see ourselves as separate from one another, from events, and from the many things that make up our world, the quantum reality is that we live in a web of relationships between all parts of creation, and those parts, and therefore the relationships, are constantly shifting and changing.

Transformational Presence calls us beyond our concept of relationship as an energy or connection between two separate entities. Since at the quantum level, everything is simply one great vibrating energy field, there is no more “us” and “them.” There is no “our problems” and “their problems”—they are all our problems and our victories and our successes and our challenges. At the quantum level, the entire cosmos is vibrating energy—energy in motion—and everything affects everything else. Everything is contained within the greater whole, and the greater whole contains everything.

Each individual within a group is constantly broadcasting their state of being to the people and situations around them, whether or not they are aware they are doing so. As each of us learn, change, and make choices and decisions, we become a bridge for others to follow to reach new levels of Consciousness awareness. We create a change in the pattern, and as enough people create that change, the hologram changes. It is through this process that critical mass is reached. If we return to our example of standing in the middle of the mirrors, we see that when one person makes a shift, that shift is reflected or broadcast in every direction out to infinity. When a number of people are broadcasting the same shift, the message is intensified, making a greater impression on the mass consciousness. When enough people have broadcast a particular shift in thought and behavior, a tipping point is reached that leads to an entire segment of

society shifting their thought and behavior. As you and those you serve make a conscious shift in your thought and behavior, you open the door for others to do the same.

At the same time, the group consciousness is broadcasting back to the individuals. The individual or group emitting the strongest broadcast signal will be the most effective in influencing others. And what makes a broadcast signal strong? Energy, focus, and intent on the part of the individual or group.

Through this holographic process, the states of balance and harmony of our bodies and of the earth mirror each other. When we live in a state of inner conflict, anger, and dis-ease, we broadcast a corresponding vibrational frequency. On the other hand, when we live in a state of inner peace, resolution, and clarity of purpose and intention in alignment with soul, we reflect a very different vibrational frequency. Earthquakes, volcanic eruptions and shifts in weather patterns may reflect the great shifts occurring in human consciousness, or be a response to a need for a shift. At the same time, our inner states of being are reflections of what is going on in our outer world. Note the difference in how you feel internally between when you are in the hustle and bustle of a big city and when you are watching a sunset over the ocean or sitting beside a peaceful mountain stream. They are very different energy vibrations and will call forth different responses and feelings from you. The holographic universe and the Principle of Correspondence are constantly in action.

### ***INQUIRY: Open Universe***

- What does it mean in your life and work to live in an open universe? How might you live more fully in the awareness of all that an open universe infers?

- How might the concept of open universe inform your leadership and service?

**Alan Seale** is a leadership and transformation coach, founder and director of the Center for Transformational Presence, and author of *Intuitive Living*, *Soul Mission \* Life Vision*, *The Manifestation Wheel*, and *The Power of Your Presence*. He maintains a full workshop and coaching practice throughout North America and Europe.

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