

The Living Potential vs. Creationism & Evolution

Without doubt, one of the foremost issues of past and current history is the debate between Creationism v. Evolutionism. Today, creationism has been further developed to include Intelligent Design, the argument similar to Creationism that there must be a supreme being, i.e., God, who intelligently designed the world.

While both camps have strong arguments, it is Evolution which this nation's courts have ruled as the basis for our education, and by association, our beliefs. Still, due to religious freedom, the Creationists wage a significant battle to support the notion of "God" and a meaningful and purposeful life. Evolutionists base their arguments upon scientific proof without any philosophical meaning to life and its events. They contend that the mind evolved from the forces of human nature. By our discovery of "Natural Intelligence within Potential", we believe this is true and valid. The Creationist does not take issue with the facts of science but with the naturalist interpretation the evolutionist gives to them. e.g. The absence of God.

Creationism does not reject natural selection but it does believe that natural selection has limits. Evolutionism, on the other hand sees no limits to natural selection. The Creationist point of view here is based upon the fact that natural selection is observed to have limits.

There are two important points here which neither side can successfully explain:

- Natural selection does not explain conclusively the origin of life.
- Natural selection does not explain how new genetic information can arise.

While science cannot explain it at this point, it does not mean that will not happen in the future.

Creationists cannot explain it either except to say we "believe" God did it. This argument fails in several areas; which God? Whose God? And an even greater issue is what is the Nature

of God? i.e. Personal, Impersonal, Pantheistic? Due to the multiple characterizations of God, Creationism then has fostered the state of “holy wars”.

Science on the other hand, has failed on several other accounts. First, proof there is or is not a “God”. Second, it can’t explain the creative process including the manifestation of intelligence, or of mind, as well as the phenomena of miracles.

The Nature of God

The next issue concerns the question of God once again – Is it possible that “God” is not what we think he/she/it is? Perhaps “God” is only the creator. The difference here can be significant in that God is considered infallible while a creator is not necessarily so. Powerful, intelligent and many other God qualities – but not God in our sense of the term. **This question raises some very interesting thoughts and answers.**

Theory of Potential

Is it not possible that the universe is composed of a substance which has within itself the qualities of Creation, Organization and Functionality. Further, this substance, which we will call “P-Matter”, may also contain a polarity to it – something akin to the Yin/Yang forces. This P-Matter may then become the “stuff of the Gods”; where the Gods come from! Put another way, the Creator(s) utilize the P-Matter to create.

Recently, astronomers concluded that some 92% of the universe is composed of a substance we can’t identify. If we assume for a moment that our P-Matter is actually a potential force, (hence, P-Matter), this would mean that everything in the universe contains the characteristics of Potential. Let us review this theory by virtue of the nature of Potential.

Potential

“92% of the universe is composed of a substance we cannot identify.”

—astronomical fact

Potential is the most important word in the entire world for it represents the possibility of reality. It is an unsatisfied, undeveloped universal force that seeks to be realized or expressed. Potential is latent and can be manifested in an infinite number of possibilities. It represents all energy, matter, and life that have existed in the past and present, or will exist in the future. This last part sounds very much like a religious statement. Potential brings forth all forms of life and is one of the few absolute principles of existence. (We say the same thing about God). In this respect, it is all-encompassing since it contains all possibilities. (Just as God does)

The scientific definition of potential is “energy stored in an object, or the ability of an object to do work.” For instance, a rock at the top of a cliff has more potential energy than one on the ground because of the force involved in getting from the cliff to the ground, thus converting the potential energy to kinetic energy. The notion of energy stored in an object represents a contradiction in terms to potential as a force. It assumes that it requires an object to take an action. This, of course, places greater significance on the object than it does on the object’s potential.

This presents an interesting issue concerning the original nature (or “first cause”) of potential. In an ontological sense, one might say that potential emanates from the force known as the Absolute. This notion, however, leads to the age-old philosophical complaint that the nature of God could not be personal since it would also have to be equally positive and negative. Potential contains all possibilities, including negative ones, while a humanistic god is, according to traditional thinking, not negative.

Types of Potential

There are five types of Potential:

- Absolute Potential (AP): The underlying universal force that seeks to be actualized
- Ultimate Potential (UP): What a person can do or have; the amount a person can achieve
- Desired Potential (DP): What a person wants to do, have, or maintain
- Realized Potential (RP): What a person does and has
- Unrealized Potential (UNP): What a person can do and have, but doesn't

The Field of Potential

Some time ago, Geometrist Dr. Derald Langham stated, "Before energy comes *potential*." I have since come to learn that potential is composed of creative, organizational, and functional components. This leads us to the nature of potential.

Defining potential is a great deal more than what most people imagine. It involves information and discoveries about how we as humans are representations of pure potential. *Defining Potential* requires various principles and levels of consciousness to describe it. These principles we call natural intelligence (NATI). There are 3 parts to NATI which contains a total of 13 segments. We say the 3 and 13 are absolute and universal because they are evident everywhere.

**Natural Intelligence (NATI) – the Discovery of 13 Basic Principles found throughout
Natural Sciences as well as Human Character-A sort of universal basis for everything!**

Nati Principles do not occur in a judgmental or negative way (nor in an isolated fashion). This would indicate an intelligence which is non-judgemental without a particular frame of reference. Instead, we should examine these basic, absolute principles with a view toward their character as innate, natural structures (which some might call the soul). Examining these factors is necessary, for until we understand ourselves and our basic structures within the cosmos, we can never truly realize our potential. We cannot fully analyze ourselves, effectively communicate with our fellow beings, nor relate to our Creator in a clear, meaningful, and objective sense without an understanding of the self and/or of the creator. So where do we find the answers required to achieve the above? Where do we find our potential? The answer is “in nature,” which comprises the laws, principles, and structure of reality.

This, then, remains our ongoing focus: What is potential; how do we fit within potential; and how we use (or fail to use) it? Notice I said “how we fit within potential,” not how much potential do we have. Most readers might assume the latter would be a more logical approach, but that assumption would be based on how we normally observe things, not the natural order of the universe. First comes potential, and *then* comes humanity. We evolve from the consciousness aspect contained within the field of potential. Put another way, when the awareness factor of potential is ignited, we evolve. That having been said, this paper is not necessarily going to tell you that the way to make more money is by following this or that principle (although that can easily be a happy byproduct for some). Instead, it utilizes the concept of a potential field and pragmatically explains potential and its manifestation, or lack thereof, within humanity.

Applications and the Mechanics of Potential

The field of potential exists always and everywhere. It can never be removed. It is the carrier of all possibilities. It is the void out of which the proton creates other sub-atomic particles. Mystics express the same idea when they call the ultimate absolute reality Sunyata—the void. They affirm that this is a *living* void, which gives birth to all forms in the observable world. Taoists called this infinite void “pregnant.” Their belief is that the Tao of heaven is empty and formless. They do not, however, mean this in the typical sense in which we understand “empty.” Indeed, this void has infinite creative potential. The energy of the Tao responds in various parts of the field of potential in which it is activated. It comes together in order to manifest its pregnancy.ⁱ This energy is exemplified not only in physics (as quanta), but in Chinese philosophy. The field is not only implicit in the notion of the Tao as being empty and formless (yet producing all forms), but is also expressed explicitly in the concept of chi, or the life force.ⁱⁱ

A crucial feature of this field theory is the creation and altering of paradigms. This will be important in human problem-solving applications and understanding for the following reasons: the creation and alteration of paradigms demonstrates that such a process can be conceived only when paradigms are seen as destructible objects. In other words, they can change. Instead, they are seen rather as dynamic *patterns* involving a certain amount of energy, which can then be redistributed with new patterns forming our reality. This is merely another way of stating that reality and potential are complementary—two expressions of seemingly opposite phenomena. By analogy then, how often are new undertakings and ideas embraced with enthusiasm, as surges of energy that represent transformations from potential to a tangible goal? In terms of quantum physics, the creation of a massive particle is only possible when the energy corresponding to its mass is provided.

Potential energy, therefore, is always present for the creation of objects in the observable universe. In the same way, potential energy as defined by NATI, is responsible for the redistribution of energy to form new patterns of achievement. (Just as the second law of Thermo Dynamics state) Because nature is our model, we see the principles of science reflected in the “Potential” concept of using energy from the “pregnant void” to manifest itself according to our goals. The transformation is achieved through our Focus and Beliefs, which help actualize the Expression of the initial energy (or enthusiasm to create or change something). Focus and Beliefs are described in theological terms as prayer, faith, hope and more.

One of the truly amazing phenomena here relates to how this use of energy is sometimes strong and at other times weak. The reason for this difference is explained by Bohr’s Principle of Complementarity and Heisenberg’s Uncertainty Principle. In the field of potential, all interactions are pictured as *virtual* particles. Virtual particles are different from real ones that are created in the activation process because they only exist as probabilities. They are realized by virtue of observation. Observation equals Focus! Again, we are brought back to Awareness, or our point of focus, as the factor determining the strength of the energy required to realize potential. As we are all well aware, it can be diluted by a restrictor such as fear, or enhanced by belief, such as confidence.

It all comes down to the following: potential, as we understand it in terms of both physics and mysticism inherently possesses a quantum field that is seen as the basis of all reality, abstract and concrete. Potential, relativity, and the quantum field are therefore synonymous with respect to human consciousness. Since they exist everywhere, they can never be removed and are “translators” for the energy that produces all material phenomena. Further, as stated by the Chinese Sage Chang Tai, when one knows that the great void is full of chi, one realizes that there

is no such thing as nothingness.ⁱⁱⁱ Potential embraces (or more accurately contains) quantum energy. When quanta are generally aligned, events manifest. When they align *perfectly*, the highest degree of energy or power manifests. This latter energy is sometimes identified as spiritual or superhuman, the place of miracles.

Human Adaptation of the Characteristics of Potential

Within each human, there are certain characteristics that empirical research has demonstrated have been adapted from those of potential itself. The absolute qualities of potential are as follows:

- Omnipotent (all-powerful): to do/influence/control everything.
 - Positive Aspect: possessing the strength to overcome adversity to develop/evolve.
 - Negative Aspect: controlling others against their will/abuse of power.
- Omnivorous (all-engulfing): to have/possess/acquire/consume everything.
 - Positive Aspect: abundance
 - Negative Aspect: greed/over-consumption/gluttonous/short-term/hedonism.
- Omniscient (all-knowing): knowing everything.
 - Positive Aspect: curiosity/knowledge-seeking
 - Negative Aspect: jumping to conclusions/closed-minded/dogmatic/prejudiced
- Omnibus (all-inclusive/all-encompassing): being everything
 - Positive Aspect: unified/comprehensive/connected
 - Negative Aspect: lack of uniqueness/distinction among the parts/rejection of

all-inclusiveness

- Omnipresent (present everywhere; immortal): to be everybody and always be
 - Positive Aspect: mobility/longevity
 - Negative Aspect: overextended/fear of death

- Equipotent: (seeks balance from high to low and vice versa):
balanced/homeostatic/ comfortable
 - Positive Aspect: moderation/balance/comfort
 - Negative Aspect: resists change/stagnation/boredom/low frustration and tolerance/maintains the status quo even when it is negative

Let's now look at specific examples of these characteristics. You will note as we go further, how close to the God concept we identify with.

Omnipotent

The Omnis have profound effects on people but are greatly misunderstood. For example, take “omnipotent” in a spiritual sense. Fundamentalists believe God has the ability to control us and change our minds. If this is the case, why then do we have dictators, devils, bullies, bosses, bad boards of directors, poor organizations, corrupt governments and office holders? On a positive note, however, having inner strength and/or confidence is a representation of omnipotence. In another respect, this is where our core human dynamics of power and control are based. The arrogance of power is bred here.

Omniscient

This is an all-knowing factor we have all experienced internally and externally, both from ourselves and from others. This is the realm of the “know it all” in its weak aspect, while wisdom

can be interpreted as its strong respect. At the highest level, it is illumination, or pure knowing. Not many people experience this last state because they don't look in the direction of understanding, development, or truth.

Omnibus

This "be everything" aspect of potential is very exciting and quite revealing. Imagine a space where every possible reality exists. We may wish to call this space infinity because of the infinite possibilities it presents. What this space needs to make sense (or be realized) is a structure of some sort. The nature of the structures we choose determines what the end result (or manifestation) looks like. Many times we get carried away with what we want to have included in our structures because this segment of potential has overwhelmed us concerning a particular objective. The "I want to do everything" types have an overabundance of this characteristic.

Omnipresent

This segment generates "I am immortal" feelings. It is also related to wanting to be everywhere. It is where our fear of death has its basis. It relates more to space than time, although in its purest state it really doesn't deal with time at all. Therefore, when the reality of time is introduced into this space, conflict arises. Take, for example, travel to exotic places. We all want to go to the mountains, the shore, or the desert, but money aside, we can't be in all these places, especially not at the same time or timeframe (and in most cases, not even in a lifetime).

Omnivorous

Did you ever meet a business person who is consumed with making money? Ivan Boesky couldn't make enough even though he accumulated billions. His greed so consumed him that he transcended the structure of reality we call business and civil laws. That's because he was overwhelmed with omnivorous potential and his structure was not sound. He needed a better,

stronger model to follow in order to contain his overabundance of this type of potential.

Equipotent

This represents the middle ground, or balance. Sometimes erroneously cited as being pacifist in nature, it actually represents as much a plus as a minus, strength as much as weakness. This aspect has more to do with non-motivated states, such as willingness to take second place. Psychologically, this may be interpreted as seeing both sides of the issue, or construed as ambivalence in other contexts. Satisfaction is a form of this factor, a very important one as we will see later.

I'll repeat the past comments on the essence of segments, such as those presented in this section: it is more significant that they bring the reader to as full an explanation of what we are talking about as possible rather than to attempt to utilize them.

Summary – Doctrine of Potential

Potential is something that does not yet exist but can be imagined. It exists throughout nature. There are two basic types of potential: Realized and Unrealized.

Keys to Potential:

- Realized potential emanates from a point of reference.
- Unrealized potential has no point of reference.

Both forms of potential have three basic components which contain all possibilities:

Creativity
Organization
Function

Furthermore, both forms of potential contain Polarities:

good/bad
positive/negative
on/off
in/out

The basic components have thirteen parts to them:

Creative	Aware/Focus	
	Beliefs/Concepts	
	Expression/Communication	
Organizational	Laws	Mirror
	Order	Details
	Priority	Whole
Functional	Physical/Material	
	Mental	
	Emotional	
	Intuitive/Spirit	

POLARITY

At this point, we move into a part of our new system that is vital, innate and quite mischaracterized. Across an entire cultural spectrum, the Western mindset frames issues in terms of yes/no, guilty/innocent, right/wrong and so forth. As we saw in earlier, there is a drive toward individual accomplishment in the West, although trying to obtain the largest amount of money in the shortest amount of time doesn't leave much room for nuance. Western society seeks instant gratification and perfect justice. We want food handed to us through drive-up windows; we want movies made available "on demand" on our cable TV systems; and we want the good guy in the white hat to triumph in each and every conflict. We want God to solve our problems! Deliver us from pain, injustice and yes-poverty.

In our haste to get results, we see life in simplistic terms since polarities can be recognized without a great deal of thinking. Notions of good and bad are visceral and can produce the Great Restrictors of Fear, Ego, Ignorance, and Self-deception. When we think with only our emotions, we are usually driven to polarities.

OLD DEBATES

Even science is not immune from polarized thinking. One of the oldest controversies in psychology is whether nature (genetics) is more important than nurture (environmental factors) when it comes to explaining a person's behavior. Do we inherit behaviors the way we inherit eye color, height, or build? Or is the way we act more a product of our environment and upbringing? Can a stable, loving home override unhealthy tendencies? Can good genes lift us above a less-than-ideal home life? Both nature and nurture would seem to be important factors in everyone's development, and yet the debate continues as psychologists and geneticists square off in

professional journals, citing their latest research that allegedly proves love conquers all or criminals are made in the womb.

It's as if we're hardwired by culture to carry prejudice and shallow assessments from the schoolyard into serious areas of scientific investigation, where opinions have no place. Our focus on extremes not only causes arguments and frayed nerves, but it hampers humankind's ability to study both itself and its environment in order to achieve what NATI regards as the paramount mission in life: the development of our potential.

Even brilliant physicists have reacted to opposing theories with emotion rather than reason. The theory of wave-particle duality, perhaps the greatest polarity in all of nature, caused considerable consternation among many theoreticians. Einstein himself was profoundly unsettled by the entire notion of uncertainty and for the most part turned his back on quantum mechanics as he sought a way to unite all forces in nature that would represent a Grand Unification Theory. He was convinced that quantum fluctuations could be predicted if he could find "the bigger picture." The uncertainty inherent in wave-particle duality was not something he could accept as a final principle. Though Einstein could not refute the mathematical data behind Bohr's Copenhagen Interpretation, his visceral response to the Uncertainty Principle was quite human, his genius notwithstanding.¹ He thought that Bohr's quantum theories represented, at best, a small piece of a larger puzzle.

THERE'S NO DENYING

Polarities are an integral part of the universe. No one can deny that individuals display a wide range of behaviors. People can be passive or aggressive, weak or strong, open-minded or closed, introverted or extraverted, abstract or concrete, optimistic or pessimistic, objective or subjective . . . and these are only a few of the more recognizable characteristics that can be

observed in humans. Polarities simply exist! Apparently, it exists in Theology as well! God has his polar opposite in The Devil. Religions in numerous ways are polar to each other. The issue that seems to continuously arise here is; If God has an equal then how low can he be God! The most popular of responses is he gave us free will to decide for ourselves. It would seem that there would be better plans for the human race than that. Would a benevolent humanistic God create or even allow evil and the suffering. This world encounters-Regardless of how good they are?

The idea of opposites is even built into the fabric of subatomic particles. Antimatter is not just an invention of science fiction, for electrons have positively charged companions called positrons. Similarly, protons and neutrons are composed of quarks, small bits of matter that possess different qualities of spin, called *up* and *down*, *top* and *bottom*. Polarity seems to be responsible for keeping things together in a most fundamental way in our universe. Indeed, there are dozens of subatomic particles, such as gluons and muons, that act as glue for the strong nuclear force within the atom. We know, however, that reality somehow uses these opposite particles to produce the observable universe. There is a tension and dynamism among these elemental bits of matter that produce the paper you are now looking at or the furniture in your room. Polarity allows the potential of the universe to manifest itself. *The cosmos regards tension between polarities as a creative dynamic, and one of our tasks is to find some way to use this tension instead of always shunning or avoiding it.*

A more productive outlook on the energy inherent in any system of opposites can be seen by looking at the work of William Blake, an English poet of the early Romantic period. Blake felt that “in political history, in Christian theology, in great works of literature such as *Paradise Lost*, and finally in the nature of each individual, diabolical energy and restrictive convention, sin

and virtue, chaos and order, innocence and experience, are in eternal combat with one another.” Blake’s vision of Polarity is seen most clearly in his work *The Songs of Innocence and Experience*.^{iv} Originally published as two separate volumes, one illustrating innocence and the other illustrating experience, the poems were published as a unit in 1794, with each poem on innocence corresponding to a companion poem on experience. The poems intentionally represent literary and philosophical polarities. The innocence of a lamb, for example, is contrasted with the savagery of a tiger in “The Lamb” and “The Tiger,” respectively. Blake, an avowed skeptic in all religious matters, intentionally challenged his reader to consider that the same force, both divine and diabolical in nature, was responsible for the creation of the lamb and the tiger. Needless to say, some of Blake’s contemporaries considered the comparison of the Lamb of God to a ferocious tiger to be more than a little blasphemous.

While Blake believed that life was a dynamic process, he also believed it could be static at any given moment depending upon an individual’s perception or focus. There is a natural correspondence between this idea and Heisenberg’s Uncertainty Principle. Translated into modern scientific terms, Blake was saying that we choose to observe events in space-time as either darkness and sin or virtue and light. To Blake, such simplistic observations could not account for the tension and conflict that permeate life.

Blake’s philosophy of dynamism and opposites is reflected perfectly in the writings and theories of Abraham Maslow. Maslow saw that the arbitrary pitting of good against evil resulted in the possibility of Unrealistic Perfectionism. He believed that the historical search for a utopian society produced simplistic notions such as:

- Let us all love one another.
- Let everyone share equally.

- No one should have power over anyone else.
- The application of force is always evil.
- People are never bad—only unloved.

These Utopian ideals are exactly what Blake was writing about in “The Lamb,” ideals that he vehemently rejected in “The Tiger” and other songs of experience as being unrealistic and naive. Like Blake, Maslow believed that such a one-sided approach to life could not account for the full spectrum of human behavior. In Maslow’s estimation, expectations of perfection led to disillusionment and apathy.

WAR AND PEACE

When I first set out on my search for truth many years ago, one of the first things I sought was a concept that would include opposites without trying to negate or deny them in any way. My journey led me to Taoism and the Eastern belief in *yin* and *yang*, opposing forces representing female and male, passivity and aggression, negative and positive. In Eastern thought, *yin* and *yang* are seen as complementary parts of a whole, not adversaries striving to triumph over one another. The *Tao* advocates a balance between forces, not antagonism. In *The Tao of Inner Peace*, Diane Dreher writes,

When we’re caught up in dualism, conflict invariably turns into combat. Fearful and defensive, we project our negative shadows upon our opponent, whom we see as the cause of all our problems. We define conflict resolution as a matter of either “winning” or “losing,” defeating our opponents or being defeated. All other options vanish, and instead of using our energies to solve problems, we turn in fury upon our perceived enemy.”³

The same prescription for living was given by the Buddha in his Fourth Noble Truth, in which he advocates the Middle Way, a path that avoids extremes. For the Buddha, it was this “third way” that ultimately has the ability to release mankind from *samsara*, the ceaseless cycle of birth and death driven by karma, the never-ending chain of cause and effect.

I can unequivocally say, therefore, that negativity is something we should learn more about as we attempt to further our understanding and personal development. Indeed, there is stability in all of nature based entirely on this union of opposites, including good and evil. Without a doubt, human existence itself is modeled on the tension between extremes, for life is always placing us at the crossroads of Polarity. Whenever we employ a plan or engage in an action, we are choosing against its opposite. Life constantly pushes us to make choices so that we may evolve and grow while contending with alternate ideas and their consequences. Sometimes, evil is inextricably bound up in our decision-making processes and we need to come to terms with this fact.

For instance, we can view war as dire tragedy with no redeeming value, and yet the total absence of war might be equally tragic. The Civil War was the bloodiest conflict our nation has ever seen, with a combined total for both North and South of over 600,000 casualties. Abraham Lincoln was faced with excruciatingly difficult choices, but our society today now espouses rights and laws that might not exist if the Civil War had been averted and the South had developed a legal code of slavery in the twentieth century. The road to racial equality was one that ran through the very heart of conflict.

Harry Truman is criticized by many for dropping the atomic bomb on Hiroshima and Nagasaki. Whether or not World War II could have reached a successful conclusion in the Pacific theater without the detonation of nuclear weapons is a matter of debate, but one thing we do know for sure is that the possibility of total nuclear annihilation resulted in a middle course between the United States and the Soviet Union in the decades after the Second World War. Both sides practiced the principle of deterrence as a way of avoiding all-out nuclear conflict. There was peace, but it was an uneasy peace with missile silos housing thousands of nuclear

warheads ready for launch. If Truman had not made the decision to drop the two atomic bombs, would mankind have refrained from using more advanced nuclear weapons in later years? It is impossible to tell, but the wars mentioned above show that tension yielded long-term compromises representing workable solutions. The issues of civil rights and global peace are examples where a third way evolved from the darkness that is war. (I am not condoning war, but merely using it as an example.)

Evolution reveals the same pattern. The history of all life on earth shows that species survival depended on strength, power, predation, and domination. Once these traits had proven successful, species were able to find a stable environment in which to propagate. The often violent mechanism of natural selection resulted in stable, harmonious ecosystems.

By transcending the extremes of any two polarities, a new reality is formed. This transcendence is the essence of dynamic development and the very heart of realizing our potential! Everyone in the world possesses the thirteen intelligences and can be considered an individual matrix that functions in conjunction with the energy of polarities. No two matrices are identical, and any individual matrix may be regarded as an open system capable of adaptation and change. Fundamental to “The Living Potential” is that we all have strengths and weaknesses. As in the example of my marriage, *we can use Mirroring to see our weaknesses reflected to us by others and do something about them!*

When we become aware of our thirteen natural intelligences as components of potential and accept the existence of polarities without judging them, we can begin to implement changes in our lives. Through awareness and knowledge, we can travel the road to self-actualization and peak experiences. Winning, losing, and enemies—these concepts take on less stature when we employ our innate abilities to solve problems.

CREATION BY SELECTION

In the God Theory by Bernard Haisch, he discusses creation by subtraction. An experience I had in 1981 makes me believe its creation by selection. In optics, the process of creating something (the projected color slide) involves taking something away. White light may be bright and beautiful in its own right, but we can't depict anything using just white light alone. A world in which everything is precisely and perfectly white would effectively be an invisible world. By that I do not mean one that you would see through; rather I mean one that you could look at but still see nothing, because everything would be exactly the same, a fog of white. In optics you create by taking away. To create that sky blue, you have to take away the violet, indigo, green, yellow, orange, and red.

The esoteric traditions tell us that creation by subtraction is one of the fundamental truths underlying reality. Put in terms that relate to the God Theory, these traditions teach that creation of the real (the manifest) involves subtraction from infinite potential.

Turn on a projector on without any slide inserted and project the pure white light onto the screen. That white light contains the potential to create every image you can imagine- your Thanksgiving family gathering, your trip to the Rockies, your high school graduation. Every one of these images, and an infinite number of others, are contained in potential in the formless white light flowing from the bulb to the screen. All you have to do to project the picture you want is put in the slide that subtracts the proper colors in the proper places. The white light is thus the source of infinite possibility, and you create the desired image by intelligent subtraction, causing the real to emerge from the possible. By limiting the infinitely possible, you create finitely real.

Let's take this optical metaphor one step further. The white light of a projector can convey more than just a static image. Project a series of images in rapid succession and you

create motion. Although, on one level, that motion consists of a series of still shots, when those still shots are projected rapidly enough, the sum becomes greater than its parts. The resulting “motion picture” is more than just the sum of the images created out of the white light. People and actions and even emotions are made manifest by acting upon the formless white light in just the proper way, in just the right sequence. A replica of our real world can thus be created out of the unlimited potential of the white light through a process of intelligent subtraction carried out in space and time. A virtual reality is thus created out of formless possibility. In fact, motion pictures are a concrete example of how a filter, the film, by selectively subtracting from a formless potential, can generate a virtual reality.

The process of intelligent selection or subtraction can also be interpreted as the creation of polarity. By polarity, we mean simply a dualistic, this versus-that relationship. There are many kinds of polarity: positive and negative electrical charges, hot and cold, male and female, light and dark, yin and yang. In the optical example, above, the light-filtering process effectively creates a polarity: white and not white, red and not red, blue and not blue. (Note to any physicists who may be reading this: I do not refer here in any way to the optical polarization described by Stokes parameters.) Out of a pervasive formless white light of the projector, a whole perceptible reality based on polarity thus emerges.

“If you think of the white light as a metaphor of infinite, formless potential, the colors on a slide or frame of film become a structured reality grounded in the polarity that comes about through intelligent subtraction from that absolute formless potential. It results from the limitation of the unlimited. Haisch contends we agree that this metaphor provides a comprehensible theory for the creation of a manifest reality (our universe) from the selective

limitation of infinite potential. This what mystics mean when they speak of the realm of the Absolute (the Godhead) as opposed to the realm of polarity (the created universe).

Let's carry the God Theory one logical step further. If there exists an absolute realm that consists of infinite potential out of which a created realm of polarity emerges, is there any sensible reason not to call this "God"? Or to put it frankly, if the Absolute is not God, what is it? For our purposes here, I will identify the Absolute with God. More precisely, I will call the Absolute the Godhead. Applying this new terminology to the optics analogy, we can conclude that our physical universe comes about when the Godhead selectively limits itself, taking on the role of Creator and manifesting a realm of space and time and, within that realm, filtering out some of its own infinite potential. The results are most amazing and diverse, and include, among all other things, our laws of physics and the fundamental particles of which physical matter consists. (And other universes with other laws would result from a similar process but using a different filter of the infinite.)"

The Absolute, The Godhead and The Living Potential

Defining God is no easy matter as centuries of Theology and Philosophy have taught us. But, as science expands and information becomes more prolific, the possibilities increase.

Consider these possibilities. The absolute is the living potential, The Godhead is the consciousness which is realized through the living potential by virtue of the creative process of its natural intelligence.

To some, this may sound pantheistic, however, like every concept with the living potential, it is partly true. The pantheistic notion exists when the living potential is in its raw, unrealized form; pre-manifestation so to speak.

The logical notion which follows is that the mechanistic process of creation is responsible for Humanism! This process reflects the dualistic notion of God and Humanity, E.G. mechanistic versus humanistic, impersonal versus personal, etc.

With this scenario, both creationism and evolution have validity-but not exclusively. In its pre-manifest stage, the living potential has No Particular Frame of Reference!!

This takes full circle to the God vs. creator issue. But, before we get to this, let's examine some other issues, questions. For the creationists, what would happen if the devil gave up and r\turned good? If God created the devil and hell, how could he be good? Since he is all benevolent, this is impossible. Why does God enable or allow the devil to have his way? Would you allow your children to be emersed into an evil environment? For instance, at school? My point here is that a personalized God beyond the manifest realm of reality simply does not work.

But a creator, now that's an energy of another realm. In a very real sense, we humans are creators. We do so in all aspects, physically, mentally, emotionally, and yes, spiritually! We typically don't view ourselves in this light. By the same token, we don't look at God in the same way, that is, perhaps he is a creator, but not God in a perfect, all powerful sense. Why would it be so improbable that our creator is not perfect! Certainly, if the creator was impersonal, based in evolution or science, he or it would not be considered God like. A segway of this is that the entirety of humankind is a manifestation of the living potential force, Since the living potential force is infinitely capable, it has numerous avenues it can pursue. It may do this in order to realize itself or it may have no purpose at all! But, I think there is a strong hint of the purpose in religion! Look at the Lord's prayer; "Our father, who art in heaven...they kingdom come, they will be done, on earth as it is in heaven". The creator/living potential force has an image of

taking human form in a perfect manner and is attempting to do so by virtue of the human experience!

CORRELATING TRADITIONAL SCIENCE WITH THE LIVING POTENTIAL

The following section deals with the correction between our Theory of Potential; The Living Potential and Scientific Dogma.

1) ERWIN SCHRÖDINGER'S CAT THEORY

Among other things, this corollary describes the duality of Polarity and its host. This is the famous theory that showed that two mutually exclusive outcomes can coexist in quantum mechanics. It postulates that a rather unfortunate cat is locked in a box that has a device capable of releasing lethal cyanide gas if a radioactive atom discharges. There is a fifty percent chance that the cat is alive at any given time if no one looks in the box, thus preventing any observation that would produce a definite outcome of the experiment. The Copenhagen School of Quantum Mechanics, built on the concept that the collapse of the wave function results from observation, cannot inform us as to the welfare of the cat.^v In effect, this theory enables us to construct the The Living Potential model so that we can deal with two complete opposites to formulate a position in our reality at the same time. We know that superposition of possible outcomes must exist simultaneously at a microscopic level because we can observe interference effects from these outcomes.

To understand Schrödinger's Cat Theory, one must accept how strange a theory quantum mechanics is its connection with The Living Potential. In all other scientific theories, we have models of how we think things work. For example, we know that distance traveled equals speed times velocity. If you travel for two hours at fifty miles an hour, you will go one hundred miles.

Time is measured with a clock, while the distance is measured with the odometer on your car. Quantum mechanics is not like that, however.^{vi} What we measure in experiments is not described by quantum mechanics. Instead, quantum mechanics gives the probability that a given measurement or event will occur at some point in time. The only thing that quantum mechanics describes is how probabilities change with time. For example, if the particle in the cat example has a fifty percent probability of decaying in one hour, it will have only a slight chance of having decayed after one minute. After ten hours, it will have a high probability of having decayed. Quantum mechanics gives an exact model of how that probability changes over time. It says nothing at all about the actual state of the cat as these probabilities change. Science tells us what the probabilities are, but is completely silent on what (if anything) happens *between* observations.^{vii} The observation is viewed in The Living Potential as drawing awareness, focus, consciousness to a situation. This act then activates the creative aspect of The Living Potential.

2) NEILS BOHR'S PRINCIPLE of COMPLEMENTARITY

Here we see The Law of Complementarity, or Transcendence, as a basis of our The Living Potential. This theory was adopted by Neils Bohr at the Copenhagen Convention of Quantum Theory in 1927. It was in response to the theory of wave-particle duality. In effect, complementarity says that bringing two opposites together forms a higher, third level of reality.^{viii} One example is when colors are combined to form a complementary color. Another example is a complimentary duality between free will and determinism.

In The Living Potential, this would be applied by looking for the integrating factor in any issue. Moreover, understanding the integration is a fundamental principle of intelligence and should always be pursued. We contend that a manifested polarity requires the engagement of opposing forces.

Finally, Complementarity in The Living Potential also relates to the concept that a single intelligence may not be sufficient to explain all the observations made of various systems, so all thirteen intelligences must be considered when understanding a situation.

3) THE UNCERTAINTY PRINCIPLE

Here we see that potential cannot be realized without clarity, definition, and awareness. Proposed by Werner Heisenberg, this theory states that we cannot universally know or measure all answers or all issues.^{ix} Further, time and space cannot be measured simultaneously. Accordingly, energy and location cannot be determined at the exact same time. In The Living Potential, a model must have the capability of changing without the model itself changing or else we will experience failure. Current behavioral and comprehension models do not utilize open and closed architecture, while The Living Potential does.* **[*Other models (or understanding and reality) have little, if any, utilization of both open and closed systems.]**

By utilizing the theory of probability and the notion of open and closed systems, we are able to identify multiple factors of Potential at the same time.

4) CHAOS AND COMPLEXITY

Here we will see the basis for building The Living Potential Systems as well as interpreting patterns. In modern scientific terms, Chaos Theory was adapted or expanded by James Gleick (of the DNA discovery team).^x It was advanced in the area of mind science by Ilya Prigogine.^{xi} Chaos, in essence, is recognized by many as patterns within other patterns or levels. These patterns are fixed and closed and operate independently. Reality is established by the visible parts of the different levels.** **[**An example of this is Priorities. On one day our life focus may be on our work, while on another day it may be on an ailing relative.]** I have

discovered a geometric example of the underlying nature of Chaos and how it is theoretically possible to comprehend it. With The Living Potential's thirteen intelligences, we have the basis for decoding Chaos. The interaction of these fixed principles with variable factors within The Living Potential generates a matrix and creates an infinite array of patterns.

5) POLARITY

Polarity, in simple terms, is oppositional forces such as positive and negative, white and black, good and evil, positive and negative. In The Living Potential terms, Polarity exists in everything and is actually the driving force behind all understanding and behavioral factors. In order to gain understanding from a model, it must include both sides of an issue. It is the Yin/Yang energy inherent within The Living Potential.

6) THEORY OF RELATIVITY

This is connected to Measure, Judgment. Developed by Albert Einstein in the early part of the twentieth century, this famous theory states that everything is relative within the universe and all things can therefore be measured in relative terms.^{xii} The first rule of relativity states that the laws of physics must be the same for observers in different frames of reference. While observation and measurement are relative, there are absolutes such as the speed of light. In The Living Potential terms, observation and measurement are relative not only to each and every other non-absolute thing, but also relative to their own frames of reference. Every event or notion can then be traced to its invariant source, which is one of the thirteen forms of intelligence and/or Polarity, inherent within the living potential.* **[*Remember, we are stating that the thirteen principles/intelligences are basic to our nature.]**

Everything else is then variable and is implemented in the process of reality.** **[**Everything else covers such factors as Cultural Characteristics, the Great Restrictors, Core Human Dynamics, etc. It is these factors that generate the relativity in our lives, while the thirteen are fixed. It is our interpretation of them that shapes our reality.]** In The Living Potential, we apply this principle to our model in order to demonstrate how opposites and unrelated factors do indeed connect. Accordingly, things and events in our lives are all compared to our core focus and measure by that focus. In other words, our reality is determined by what we focus on.

7) THEORY OF LAWS

The Principle of Models, Rules and Laws is based here. This ancient theory provides us with boundary, structure, and rules by which participants behave. This is one of our thirteen intelligences and creates a model that we follow to bring us insight. The Living Potential contains a classification system which houses a category for laws, rules, etc... which laws or rules we utilize is up to us.

8) HOLOGRAPHIC THEORY

The Concept of Wholeness, Integration and Synthesis is found here. This twentieth century finding, which was promoted by Karl Pribram^{xiii} and David Bohm^{xiv}, was based upon the discovery of the holographic picture. According to this phenomenon, the parts of the whole are a representation of the whole and vice versa. We implement Holographic Theory through The Living Potential by virtue of the 13 principles with The Living Potential being a part of each of us. “We are made in the image and likeness of (God) the creator”.

9) HUMAN FACTOR FORMULA

This is an adaptation of the ancient philosophical premise first developed by Thales, the

ancient Greek scientist and his famous student, Pythagoras. This we identify as the The Living Potential formula:

$$A + B = C$$

A = Awareness B = Beliefs C = Communication

First comes consciousness, then our concepts, then realization.

10) THE LOOKING GLASS THEORY (VISCERAL SCIENCE): USING THE MIRROR

This is a valuable notion for an accurate and exciting theory. I utilize this term because of the definitive insight that it gives one in comprehending his or her own processes. *Looking Glass Universe*^{xv} makes a profound argument for the fact that the universe is indeed a mirror of itself; in the same fashion, so are we. This is one of the most effective and profound principles in The Living Potential and in nature. The Living Potential has within it a perfect path. This path allows us to realize our mistakes by “seeing ourselves in others”. In this way, the creator enables us to communicate with and understand his wishes.

11) SCIENCE OF FUNCTIONALITY

This is a centuries-old basis for the way we take action. This theory has its basis in numerous ancient societies, including China, Greece, and Hebraic cultures. It was described as fire, earth, air, and water and represented the elements from which the universe and humankind were created. In The Living Potential, we utilize this to identify the four ways by which things function physically, emotionally, mentally, or intuitively. The Living Potential actually has these qualities as well. They are better realized as energy, feelings, consciousness and sensing.

12) MULTIDIMENSIONALITY

This is where Details, Parts and Cross-Disciplining of Systems are within The Living Potential based. This twentieth century notion deals with the laws of various levels of reality and their differences from each other. It originated from life-science and uses methods and technology from other disciplines. Ludwig von Bertalanffy is one of the key creators of General Systems Theory and multidimensionality. Within the Internal Archives of Bioscience Organization this theory is also quite prevalent. We use this concept not only to connect the various distinctive notions of a situation and reality, but also to understand how various levels and parts have their own existence while they simultaneously move within a greater community. A classic example would be the human body and its cells. In The Living Potential, the thirteen intelligences are individualistic, yet act collectively to form varying multiple systems, or dimensions. Understanding the thirteen, makes it easier to define and locate systems, patterns, and procedures; all of which are based in nature.

13) NATURAL LAWS

This is another ancient concept that serves as the basis of our findings, for this is where the Rules, Models, and Laws within The Living Potential come from. This has been defined throughout the ages as the order that governs the universe. Thomas Aquinas said eternal life is God's wisdom inasmuch as it is the directive norm of all movement and action. The creator directed us to an end. The role that the creator has prescribed for our conduct is found in our nature. In The Living Potential terms, and in terms of General Systems Theory, we take that a step farther and say this role is not only found *in* our own nature, but also *throughout* nature. Those roles in human terms are found in the thirteen principles plus Polarity. We further conclude in NATI philosophy that God and nature are intertwined and that nature has the ability

to define the human mind. Moreover, this nature emanates from potential and represents an absolute intelligence of the universe.

14) THEORY OF POTENTIAL

This important theory actually implies an impersonal description of God or creator. Potential is identified as the substance of the absolute, the God-force. Development is its (and our) objective. Its basic elements, as found in Chaos Theory, are creativity and Polarity. In The Living Potential terms, we have further identified the segments of potential as being the Creative, the Organizational, and the Functional. Potential, in itself, has been defined as “something that does not exist, but which can be imagined. It is latent.” This theory opens up an entire world of creativity and understanding insofar as it enables the human mind to accomplish anything that it envisions without question. * **[*If it can be imagined with full detail and believed in, it can be accomplished.]**

Potential energy is the energy stored in a body or system because of its position, shape, or state. In The Living Potential, it has a direct bearing on ones’ frame of reference. Further, there is a principle called plenitude. This states that the universe, to be as *perfect* as possible, must be *as full as possible*; it must contain the greatest possible diversity (and profusion compatible with) of kinds compatible with the laws of nature. This principle certainly supports the concept of potential as a universal force rather than something that is strictly an idea because it is all encompassing. Every possibility exists within it. Some call it the mind of the creator.

15) OPEN AND CLOSED SYSTEMS

Not only do we have Polarity within The Living Potential, but Order, Process, and Development as well. These two factors are a result of modern-day systems sciences and

represent the nature of Concepts and Models in The Living Potential terms.** **They represent the structure of our thirteen intelligences in that we plan, organize, and function in open and/or closed modalities. For example, planning something with a closed mind is not going to produce as good a possibility as if it were an open mind.]** All open systems create reality. They are also vital for depicting random results from normal patterns and finding order out of randomness. Open systems represent unstructured models, while closed systems represent structured models. In The Living Potential, what we have created by our model is a closed system with certain attributes of an open system, thereby enabling unbridled results.^{xvi}

16) THE THEORY OF PROBABILITY

Here is another interesting notion for Measure, as well as how The Living Potential works for each of us. This is a branch of math concerned with numbers that are called probabilities and reflect the concept of chance. Probabilities occur all the time in science because we almost never know everything we need to make a completely accurate prediction. For example, if you really want to make a trip of a hundred miles, you cannot know ahead of time exactly how long it will take. You might run into a traffic jam. You can only give an estimated time.

In quantum mechanics of The Living Potential, probabilities are different. They do not result from our limited understanding of the mechanics of the universe. The theory states that an event that occurs a certain number of times, called “successes” in similar tries, has a probability that is the ratio of the successes to the number of tries. In The Living Potential terms, we say that probability is evidenced by the fact that eventually one of the thirteen intelligences and/or Polarity will bring us to the answers we are seeking. In virtually thousands of applications

involving numerous types of clients and situations, this system has responded favorably without question.***[*The source here is the Gilchrist Institute and the author's twenty-five years experience.]**

17) GENERAL SYSTEMS THEORY

Here we have the model for the transition from nature to Human Understanding and its systems. Ludwig von Bertalanffy,^{xvii} a key creator of General Systems Theory (GST), was one of the most important theoretical biologists of the first half of the twentieth century. He conducted research on comparative physiology, biophysics, cancer, psychology, and the philosophy of science. He developed a kinetic theory of stationary open systems, was one of the founding fathers of the Society for General Systems Theory, and was one of the first to apply GST methodology to psychology and the social sciences.

By the 1930's, von Bertalanffy formulated the Organismic System Theory, which later became the kernel of General Systems Theory. His starting point was to deduce the phenomena of life from a spontaneous grouping of system forces comparable to the system developmental biology of today.* **[*In other words, he applied the observation of various biological systems working independently as part of a collective group.]**

He based his approach on the phenomenal assumption that there exists a dynamic process inside the organic system. He postulated two biological principles, namely the maintenance of the organism in non-equilibrium, and the hierarchical organization of a systemic structure. As a metatheory derived from both theories, von Bertalanffy introduced GST as a new paradigm that could control the model construction in all the sciences. As opposed to mathematical systems theory, it describes its models in a qualitative and non-formalized language. Thus, its task was a

very broad one: to deduce the universal principles that are valid for systems in general.

He began by reformulating the classical concept of a system and defined it as the relation between objects and phenomena. As a methodology applicable to all sciences, GST encompasses the cybernetic theory of feedback that represents a special class of self-regulating systems. According to von Bertalanffy, there exists a fundamental difference between GST and cybernetics since feedback mechanisms are controlled by constraints, while dynamic systems show the free interplay of forces. Moreover, the regulative mechanisms of cybernetic machines are based on predetermined structures. In short, GST is a regulative instruction that synthesizes the data, or even laws, of the natural sciences and makes them applicable to all the other sciences. By this, a matrix model is formulated so that data can be categorized, analyzed, and synthesized.

This theory not only represents the organizational principles of Feedback, Models, Details, and Holism, but also clarifies the system of self-regulation (i.e., how we establish procedures and programs that can guide and correct us through a feedback process), found within The Living Potential.

18) CONTINUUM

This is another theory of Parts and Details, as well as abstract and concrete thinking. Interestingly, Continuums work well with abstract thinking. With an abstract view of an issue, a spectrum of related possibilities is presented, while with concrete thinking, a very specific view is presented. In science, continuum is a set of identifying points on a line. In The Living Potential, it represents a number of principle forms. These forms are sometimes called archetypes. There is any number of synonyms or related interpretations for a particular Living Potential principle. An intelligence continuum is a group of terms that functions in conjunction

with a frame of reference. We use an archetype as a potential meaning in place of the original idea or intelligence. In this respect, the various intelligences actually are represented as a group, or principle. This means that we are looking at symbols, not necessarily specifics (e.g., a Buick symbolizes a car). We can find such archetypes in the various lists and charts of the thirteen intelligences and their synonyms.

19) COHERENT UNITS

This is how we can achieve a resulting system or data model. In science, this is defined as a system of measurement in which units are obtained by multiplying or dividing base units without the use of numerical factors. In *The Living Potential*, this is analogous to the matrix of the thirteen intelligences subdivided into various information subsets. For instance, when we create a matrix of Core Human Dynamics vs. $A + B = C$, we then have an expanded model of analysis. We call these basic coherent units potential or consciousness units. Gottfried Leibnitz called them monads.

20) FEEDBACK

The best scientific proof of the Mirror is that it works! Feedback is the use of a system's output to control or direct its performance. In *positive* feedback, the output is used to enhance (or increase) the input. In negative feedback, the output is used to eliminate (or reduce) the input. There are numerous other uses as well. The creator utilizes humankind as his feedback mechanism in order to create "a more perfect union"; to realize "his kingdom to come, on earth as it is in heaven."

21) SELF-ORGANIZATION

Nature & Absolutes such as virtue all possess this quality, as do our Living Potential Principles. This is the spontaneous order arising within a system when certain parameters of the system reach critical values. It is related to the concepts of broken symmetry, complexity, and non-equilibrium mechanics. Many systems that undergo transition to self-organization also undergo transition to Chaos. Typically, what may appear to be confusion and Chaos is nothing more than nature using a path that we are unfamiliar with to obtain its objective. One difficulty people often have lies in their inclination to follow a path blindly, without knowing or seeing what is coming next. That is why self-organization is not easily accepted.

The basic principles of The Living Potential enable self-organization. Not all closed systems foster self-organization or imply procedures. The Living Potential systems enable flexibility while human constructed systems do not. They are simply too inflexible.

Although our Theory of The Living Potential has a basic underpinning of metaphysics and philosophy, it correlates with hard science. The laws and theorems listed in this section all describe principles that are reflected in nature and validated by one or more branches of science.

SUMMARY

One thing is for certain in The Living Potential doctrine, there does exist a force which contains both intelligence and consciousness. It would appear from this that a creative capability exists. Whether or not this creative force is impersonal or personal seems to depend upon its state of development. For example, in its raw, cosmic environment it is impersonal while in its developed, material environment, it is personal.

Humankind has not yet progressed to the point that it can implement this tremendous power and force in a manner reflective of STAR WARS. We have not yet evolved to the stage of emotional domination of the self, nor ample control of the Great Restrictors, fear, ego, ignorance

and self deception. In fact, we have made little advancement in these areas of personal development over the last 2,000 years. Oh, our knowledge of human dynamics has certainly grown, but not our understanding. This can be observed by our over dependence upon religious and governmental dogma, promising inner fulfillment, security, peace, material, satisfaction and salvation. How much longer will it take to reverse the mind set of the personal God “in heaven” as well as “frailty” of the human condition. The most popular of concepts restricting humanity for centuries is the “I’m only human” mindset. If we ever meant to achieve godlike status, the notion of “only being human” as a fallback certainly could not prevail!

What is needed at this time in history, is a realistic expectation of achievement for beyond where our mindset is at this point.

We need to understand that we are the gods of The Living Potential. From this point of reference, everything will become much clearer!

ⁱ Diane Dreher, *The Tao of Inner Peace* (New York: Harper Perennial, 1991).

ⁱⁱ L. LeShan, *The Mystic, The Median and The Physicis* (New York: Viking, 1974).

ⁱⁱⁱ J. Needham, *Science and Civilization in China* (Cambridge, England. Cambridge University Press, 1956).

Section 3

¹ Louis de Broglie, L. Armand, and P.H. Simon, *Einstein* (New York: Peebles Press, 1979).

² William Blake, quoted in *Major British Poets of the Romantic Period*, ed. by William Heath (New York: Macmillan, 1973).

³ Diane Dreher, *The Tao of Inner Peace* (New York: Harper Perennial, 1991).

^v *Dictionary of Science* (New York: McGraw-Hill, 9th Edition). http://whatis.techtarget.com/definition/0,,sid_9_gci341236,00.html. Schrödinger’s cat is a famous illustration of the principle in the quantum theory of superposition proposed by Erwin Schrödinger in 1935. Schrödinger’s cat serves to demonstrate the apparent conflict between what quantum theory tells us is true about the nature and behavior of matter on the microscopic level and what we observe to be true about the nature and behavior of matter on the macroscopic level.

^{vi} John P. Briggs and F. David Peat, *Looking Glass Universe* (New York: Simon & Schuster, 1984).

^{vii} Karl H. Pribram, *The Holographic Principle* (N.p.: Freeman Press, 1979).

^{viii} P. Russell, *The Global Brain* (New York: St. Martins Press, 1983).

^{ix} David Bohm, *Quantum Theory* (Englewood Cliffs, NJ: Prentice Hall, 1951).

^x James Gleick, *Chaos: Making a New Science* (New York: Penguin, 1988).

^{xi} Ilya Prigogine and I. Stengers, *Order Out of Chaos* (New York: Bantam Books, 1983).

^{xii} *Oxford Companion to Science* (Oxford, England: Oxford University Press, 1995). www-gap.des.stand.acuk/~history/Mathematicians/Einstein.htm. In 1905 Albert Einstein made important contributions to quantum theory, but he sought to extend the special theory of relativity to phenomena involving acceleration. The key appeared in 1907 with the principle of equivalence, in which gravitational acceleration was held to be indistinguishable from acceleration caused by mechanical forces. Gravitational mass was therefore identical with inertial mass.

^{xiii} Karl H. Pribram, *The Holographic Principle* (N.p.: Freeman Press, 1979).

^{xiv} David Bohm (1917 – 94) was one of the foremost theoretical physicists of his generation and one of the most influential theorists of the emerging paradigm through which the world is increasingly viewed. Bohm's challenge to the conventional understanding of quantum theory has led scientists to re-examine what it is they are doing and to question the nature of their theories and their scientific methodology. He brought together a radical view of physics, a deeply spiritual understanding, and a profound humanity. In the years before his death in 1992, Bohm lectured worldwide on the meaning of physics and consciousness. In an interview in 1989 at the Niels Bohr Institute in Copenhagen, where Bohm presented his views, Bohm spoke on his theory of wholeness and the implicate order. The conversation centered around a new worldview that is developing in part of the western world, one that places more focus on wholeness and process than analysis of separate parts. Bohm explained the basics of the theory of relativity and its more revolutionary offspring, quantum theory. Either theory, if carried out to its extreme, violates every concept on which we base our understanding of reality. Both challenge our notions. Bohm is not the only researcher who has found evidence that the universe is a hologram. Working independently in the field of brain research, Stanford neurophysiologist Karl Pribram has also become persuaded by the holographic nature of reality. Pribram was drawn to the holographic model by the puzzle of how and where memories are stored in the brain.

^{xv} John P. Briggs and F. David Peat, *Looking Glass Universe* (New York: Simon & Schuster, 1984). Drs. John Briggs and F. David Peat recreate the mind-boggling journeys taken by several prominent scientists. In lively, non-technical language, the authors describe how scientists in physics, chemistry, biology, and neurophysiology have hit upon theories that could revolutionize not only their disciplines, but the way all of us think about reality. These "looking glass" theories propose that we are, at this very moment, living in an Alice-in-Wonderland universe where each part is in fact the whole, where a scientist conducting an experiment is himself the experiment, and even inanimate objects contain consciousness. Finally, we learn how their theories may fit together into a single new hypothesis that gives scientific meaning to the ancient mystical idea that the universe is One.

^{xvi} Harold Elliot Varmus, *Columbia Encyclopedia, 6th Edition* (New York: Columbia University Press, 2004). In a February, 2004 presentation to medical researchers at New York Medical College, Nobel Laureate Dr. Harold Varmus said a family of genes known as "ras" may be the single most significant component of runaway cancer cells. He said that maintenance genes tell the cells how to grow, what to attack, and what signals from other cells to ignore. "Cancer of the lung is the most common form of cancer among men and women in America, with about 70,000 deaths a year," Varmus said. "And at least 30 percent were found to have ras mutations. These genetic mutations are needed to maintain the integrity of the cancer cells, and if you interrupt their operation, you undermine the cell. If you take away the mutant gene, the cell dies." Oncogenes are normal genes that control growth in every living cell, but which under certain conditions can turn renegade and cancerous. Varmus and J. Michael Bishop's work, along with the work of a number of other research scientists, stem from the hypothesis that the growth of cancerous cells is not the result of an invasion from outside the cell, but rather a misuse of a normal gene by a retrovirus as a result of exposure to some aggravating carcinogen, such as radiation or smoke.

^{xvii} Ludwig von Bertalanffy, International Society for The Systems Sciences. <http://www.iss.org/lumLVB.htm>

