The Textbook of the Universe The Genetic Ascent to God



The nature of consciousness

and the symbolic nature

of the universe

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THE TEXTBOOK OF THE UNIVERSE The Genetic Ascent to God

The rise of consciousness toward reading the meaning of the universe in the modern human information society $\Diamond \Diamond \Diamond$ and the integration of all abstract thought in the history of life.



STEVEN ERIC ROMER

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For Elijah, Noah,

and all children of truth.

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Foreword

This book started out as a paper investigating the basis for our unified experiences in consciousness. I had read a lot about neuroscience as an undergraduate, and there seemed to be something missing from the idea of the brain as consisting of only neural circuitry. Eventually as I progressed in my academic pursuits, I came to a point where I could not even entertain the notion that these neuron theories were the only basis for our mental life. Early on, I had discovered glial cells-a type of cells in the brain long thought to provide support functions, or to provide the scaffold upon which neurons could do their things. Glial cells do not have "action potentials", the physiological events thought to be the basis for Neuron communication and our thoughts. Ignoring action potentials, I began to focus on the glial cells-which seemed uniquely suited to playing the role of the missing factor in brain science. I began to write about the glial cells in this sense back in the late 80's/early 90's and sent a couple of papers to journals. They were not very well-received. The problem I was running into with these ideas was the enormous influence of neuron theories and the whole world view that gave rise to them. All of that would come to change as I followed the rabbit of glial cells down the rabbit hole of consciousness studies.

The more I tried to find the pattern of what might be happening with the glial cells, and how that might relate to our world view, the more my world view changed. I began to realize that the world does not work like we think it does. A whole new world began to present itself logically from the consideration of these things. That was the source of the trouble I was running into-our very world view was seriously flawed, and we were basing our ideas about the nature of brain processes upon this seriously flawed world view. When I began to knit the wealth of knowledge from our information society into a whole, a picture emerged. A picture of an invisible world, an abstract world, existing behind the patterns of all our favorite theories and languages we use to describe the world we live in. It is a set of ideas and a theory which unifies all of our knowledge from history, just as consciousness unifies all the physical functioning and memories from eons of biological experiences across time. This is the theory of consciousness we have been looking for in our science for a long time. It is the consilience, the coming together, of the history of inquiry on a grand scale.

As the implications of these ideas began to sink in, I realized that consciousness must have been building for a long time. Eventually our consciousness was meant to get to a point where it meets something greater—in the accuracy and meaning of its representations of the world. The theory of evolution found its best arguments in similarities and differences among animals and in many diverse observations over time. In a similar fashion, this theory was built with evidence as diverse as religion, physics, and brain science. There is data everywhere for this theory. It is a theory about that invisible factor which binds our world together. You need to approach this theory differently than any other theory, however, because seemingly unrelated

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data all provides support for it. I use references to movies, television shows, and magazine articles to show ideas related to our mindset and subconscious things that are motivationally relevant to us via these larger patterns building in us. An invisible coherence exists beyond the "data of an experience", and that is what a scientist seeks systematically in an experiment. In this theory, there is a metapattern to all of reality—a grand unifying scheme—which ties together diverse areas of inquiry. As you will see, physics, brain science, biology, linguistics, and cosmology are all tied logically together with this theory. As far as I can tell, this theory is the first theory of literally everything. It is the first time in the history of life that our knowledge has reached a point where we might successfully attempt such a thing with our detailed knowledge of the universe and ourselves.

You get the idea—it is a wildly different world view that eventually emerges from this, and our world is going to change forever. That makes it extremely difficult to talk about these ideas because everyone has a divided-up world view, a view that is a subset of reality with an internal coherence of its own which interferes with a larger view of things. When I begin to talk about any of these subsets of reality, I attempt to speak from this larger perspective and all I get is misunderstanding. I am speaking across paradigms, not within them, with these ideas. Keep that in mind as you read, and try to see the overall pattern that emerges. This pattern is the key to our future, as you will see. Many dark areas of our knowledge are illuminated by these ideas, and many new questions are asked and answered as well. Part of these ideas is the necessity of knowing your own mind and how it works, understanding the nature and origins of your own emotions in order to rationally evaluate them. This is not something normally required of physicists, but is absolutely required to see truth laid bare without any boundaries or wishful thinking commandeering our logic.

Lastly, I am only interested in truth. I am only interested in ideas that expand our knowledge and awareness, because we only have a future if we can engage well in this type of thinking. All survival, all justice, all peace, all good things that build a greater future are based on these truth-oriented things. Motivation counts for a lot—it allows us to keep moving toward truth. There are many books coming out recently on a spiritual revolution, or some type of fundamental change in our knowledge needed to explain certain things. We are gravitating toward "holistic" viewpoints in many areas of our inquiry. These books and viewpoints are like the forerunners and foundation of a new type of knowledge about our world. They are intimations of something that is coming. That knowledge finds its logical realization in this book. This book has the actual keys to this new world. There is much work to be done, and we must work quickly. There is a bridge to be crossed, and now is the time. It is a strange new world we are entering, and with this book I intend to open the door. It is the door of power and truth. It is the door of our dreams.

Steven E. Romer Aug. 2002, Knoxville, TN



The eternal knower, finally—the process that mediates between the known and the unknown—is the knight who slays the dragon of chaos, the hero who replaces disorder and confusion with clarity and certainty, the sun god who eternally slays the forces of darkness, and the "word" that engenders cosmic creation.

--Jordan B. Peterson

♦ The Textbook of the Universe ♦



CHAPTER 1

♦ Introduction ♦

The motivation of civilizations and the progression of abstract thought

Beauty is the manifestation of secret natural laws, which otherwise would have been hidden from us forever.

--Goethe

What is the true meaning and source of our motivations beyond our immediate practical explanations of them? Is there a larger unseen pattern which our collective behaviors fit into? Is there a larger purpose or pattern to the seemingly complete world we perceive and live in? In the outside world, are there larger patterns of shape and function surrounding the various natural laws? Is there a more basic property of the universe we live in that can provide an explanation for the form and behavior of the material universe as well as the motivation behind the development of life? What is our place and purpose in the universe? What is the motivational significance in things beyond immediate utilitarian service to our biological needs, etc. (art and the symbols of nature for example)? From Freud's unconscious to Maslow's hierarchy of needs, there are many theories about how history, personality, symbols, and biological or social drives affect our behaviors. For example, Freud's ideas about the "unconscious" motivations we may have are narrowly focused on the biological drives and sensations for reproduction and maintenance of an organism, but are there larger patterns and principles organizing behaviors on a grand scale that subsume these? These theories of the origins and purposes of our behaviors are highly complex and disconnected. Can there possibly be one overarching theory that can bind all of these separate views together in a more coherent framework? Is there a single framework for the organization and coherence of the universe and everything in it? Such a framework would make everything in

the entire universe more meaningful and interrelated and would greatly increase our ability to understand it. This would shake out the bugs in many areas of science. We would understand the universe as a coherent whole instead of a myriad detached theories floating around the various halls of academia. Just as our individual consciousness binds together the various areas of the brain into a coherent experience for learning, meaning, and creativity, if we bind together the knowledge we have about the universe into an overall coherence, we will increase the power and meaning of all our knowledge-we will become creative on an unprecedented scale. How can we make overall sense of history, personality, symbols, biological or social drives, physics, and all other areas of inquiry in order to be more effective in our thoughts, in our lives, in our important decisions, and in our commerce? Why do people respond to advertising? Why do they go to church? Could there possibly be a single motivating factor which ties these together? Why do our moods change throughout the days or weeks, and what subconscious factors out of the blue tend to make us joyful or irritable? If we can see the root of these things, we have a great power over both information and over our lives. Complex, widely separated events will become coherent and meaningful. Our consciousness expands into new realms. The knowledge offered in this book finds real world applicability everywhere-from the halls of science to the boardrooms of advertising agencies. As you read this, your mind will begin to see the true meanings of our aspirations and drives. According to your individual background, you will see how these ideas work in your own life. This is a map of where the gold is in commerce, in our individual lives, and in scientific pursuits in general. This is not an empty metaphor or some vague pep talk, this is the source of that force which motivates life, the source of why people value such things as diamonds and gold in the first place-the true source of their value. Fitting these larger patterns into a whole can remove the dangers and pitfalls of lies, confusion, and other misinformation to our future.

This theory of meaning and consciousness shows how the object of existence is the unification and illumination of information in consciousness toward higher levels of unity and creativity. The main tenets of this theory are:

- 1. "Unity" is a force of existence, a natural law just like time, gravity, mass, and thermodynamics.
- 2. Physical Nature has language-like, and even literary qualities of metaphor, allegory, foreshadowing, etc—these arise because of the fundamental force of unity.
- 3. Everything we do and everything in the world arises because the future is pulling us toward it and shaping us from beyond our perceived space-time world via this unity.
- 4. Consciousness is an echo of the most basic force which shaped the universe, and brains are an echo of the process of creation of the universe toward consciousness.

- 5. Consciousness is time and space transcending as its primary characteristic—this allows us to perceive meaning, learn, etc. to move forward. Consciousness is the experienced life-force in the universe.
- 6. There is a general pattern to things that has been hidden to life until we gathered together enough information to see it.
- 7. More important than food, shelter, or sex, information gathering is what ultimately drives life forward. There is a direction to evolution. Transcendence of space-time equals survival.
- 8. The direction of the universe and the direction and struggle of life can be read in the patterns of organization of matter and the forms of life. They have a singular direction.
- 9. Religions arose because of haunting motivational tropisms—narrow, imperfect glimpses of this ultimate unity, path, and higher meaning to life.
- 10. Civilizations arose to aid the unification of knowledge toward this future of ultimate unity and creativity that the universe has been moving toward since the beginning. Truth drives civilization.
- 11. The workings of our physiological brains can only be truly understood by considering these things. Glial cells make consciousness possible, for example.
- 12. Patterns echo across various scales and various media in nature—there are repeating themes at different levels. These echoing themes are key to understanding our world. Our brains are the primary echo in the universe, and the most perfect and all-encompassing.

It is important to remember that anywhere I say "soul" or "God" in this book, I mean these in a much more detailed and meaningful sense--newly outlined in this book. I traced the origins of these concepts of "soul" or "God" and they do originate in actual perceptions about our universe and world. In other words, these terms covered larger patterns and meanings that people of antiquity perceived dimly-like an alchemist knowing there is some sort of pattern in substances, and feeling like that pattern is important. Now we have modern chemistry and we know just how important those patterns and understandings really are. All world religions (for the most part) have been an alchemy of something which receives a much fuller description here. I was amazed to come to these ideas and to see all this information opening up before me because I was truly just trying to find answers to some paradoxes and wrong assumptions I saw in brain science as currently conceived. Our world view is about to change drastically and forever. Civilization is on the way to a new era of life in which we will look back in disbelief that we could have labored under such delusions for so long, or that we have come this far despite repeated attempts to destroy us by those not sharing this vision of the future in truth. This is truly a miracle.

The best way to sum this up would be to use an analogy. Ants carry on a relatively complex social organization which is the reason they are so

successful in surviving as a species. An individual ant does not "know" the overall pattern—new workers are born and die all the time. An ant follows a trail of chemical pheromones laid down by another ant who has been successful in foraging for food-that's why you see lines of ants moving back and forth towards food as if they "know" where it is. We have to be careful there, because from our perspective it does appear that they "know", but they do not. They do what is in front of them and their genetics have been set up in such a way as to allow this beautiful pattern to emerge when they do. Now ratchet this idea up to the level of human societies. I present evidence here that there are patterns like these in human societies that we are completely unaware of. I developed a scientific methodology that allows another dimension of these variables and principles to be seen. I also present evidence that there are patterns in the physical universe which human societies continue in their growth and their operation—a sort of grand plan and natural law of the universe we have not seen fully yet in our science, but which explains many paradoxes in various scientific problems. I traced the origin of concepts like a singular "God" back to the Greek concept of the "Logos" or the coherence and inherent intelligibility and logic of the universe. It is a difficult and subtle concept now awkwardly defined by our modern interpretations of their ancient texts. I traced the earliest writings of humanity (Homer's Odyssey, the Epic of Gilgamesh, etc.) to try to get at less embellished and less enshrined raw religious ideas. I redefine "God" in my book to strip away all the thousands of years of superstition, prophecy, idols, political forces, lies, mistakes, approximations, etc. to reveal the real thing we have felt to be there and important, but lacked the information back then to describe it. I was increasingly becoming aware that this all has a lot to do with genetics—everything to do with genetics as a matter of fact, even though we tend to shy away from such interpretations for political reasons today. Languages allowed the young to be corrupted before they could become immune to lies by the accumulation of natural information from nature and life itself. As with the proliferation of any technology-the symbols and ideas necessary for advancement were eventually wielded by those not ready or qualified to wield them, swords wielded by those who did not actually "pull them from the stone", so to speak. The genetics of our minds prepare us for the wielding of the products of our minds-that is built into nature and is a story we need to heed well. Confusion is destruction on the path of truth—as much as lack of judgment equals destruction in wielding any of our advanced weapon technologies. Politics and short sighted greed, etc. along with just plain ignorance made unnatural stories proliferate and infect our mindsdisconnecting us from the source of power which drives life that we see in our best minds and natural authorities. Disconnecting us from the will in our most evolutionarily advanced and complete in knowledge reverses the will of the life force. I realized more and more that genetics are the most important thing there is when you pay attention to these larger issues beyond single lifetimes and beyond our immediate emotional propensities which evolved in large part (especially in animals) for our more immediate purposes (like the ants needing

to be compelled to do what is in front of them genetically and therefore not knowing the larger patterns). Dissection of these patterns allows us to transcend or augment them as they are needed and according to our ultimate long-term goals.

Basically, I present evidence that we are an integral part of the universe and our own experienced consciousness is part of the origin and development of that universe, and our own consciousness that we experience is a part of the origin and development of that universe. Our consciousness arises via the utilization of heretofore unknown principles of the construction of the universe. Consciousness had survival value in creativity and problem solving long before we thought to question why we have it. In the same way, we operated according to the laws of physics (running, catching balls, etc.) long before Newton described them. Consciousness is a force in the universe-it is a birth of the visions of the overall patterns of the universe toward the aim of higher creativity. Consciousness in us is an echo of the original, most basic life force in the universe itself, and amazingly this solves many of the outstanding problems of physics while also allowing the cogent interpretation of religious symbolism and metaphor. The universe and the forms within it can be "read" like a book from this knowledge. The "alchemical"-like counterpart to this in religions is the reverence people of antiquity had for "hieroglyphics" or the mystical "runes" of northern Europe. Though born of higher purpose and pursuit of truth, these later became ready tools of manipulation by those with base motives. Writing allows everyone to begin to introduce ideas with lots of lower aims into the world-messing up the original languages and detaching us from nature's writings when those with narrow and incomplete world views get hold of these things to use like levers in a skinner box for more base motives. for the short-sighted goals of immediate rewards or power. This creates a new wilderness of confusion, death, and lies affecting whole civilizations-an abstract world red in tooth and claw obstructing the emergence of the life force of truth (as defined here). These human symbols originated in the natural quality of the universe that is like poetry or writing. It makes perfect sense that the peoples who revered runes and the subtle cycles of the sun (built into the construction of Stonehenge and many other monuments stemming from their ancient influences) were the ones beginning to break free from the blindness characteristic of our animal forebears by dint of the "kundalini" of their emerging consciousness or creativity which transcends such barriers. Our language ability capitalized on our already developed abilities to see symbolism in nature. Symbolism in nature is "stories for children" that echo much larger themes of life allegorically or metaphorically. The features of the natural world reflect timeless themes-we see this easily in Christmas trees, Lotus flowers, etc. in religions. Sun worship was not entirely "wrong"-since we know now that warmth, weather, photosynthesis, and even the origins of life itself on Earth all depends on the processes and radiated energy of suns. The motivational significance of the sun to our Northern European forebears was a glimmer of the future reaching into the past-an interpretation of the beauty of

nature as real information about the creator and the path we are on. Here, I assert that all religious ideas were the dim perceptions, the breaking out of darkness of our consciousness, into the realms of these larger unseen patterns of what the Greeks called the "Logos". The missing keys to unlocking the vocabulary of nature are presented here. One key simply is that analogies are not something we just make up out of nothing-there is an echo of patterns in the universe that is just like our literary device of metaphor or analogy. In studying metaphor or analogy over the years, in relation to brain science, some amazing things emerged. The construction of the brain itself by natural processes is made entirely possible by this pattern in the universe I call the "Logos Echo"—the very same pattern or quality which gives rise to symbols, languages, analogies, and metaphors. This brings both religion and science into the same camp entirely as part of a larger picture of things. These ideas have been missing from our picture of the world, yet they are arguably the most important. One of the key pieces of information leaving the largest politicallyinspired gaps in our knowledge are the differences inherent in the races of man according to which environments and paths they chose and which thereafter shaped them. We have both the right and the duty to know the whole truth about who we are and to not be turned from this path by guilt, politics, or those others selfishly wielding weapons arising from and for the purpose of the protection and pursuit of our own goals in larger realms of truth. The larger realms of truth beyond our own life and times are truly the only things worth fighting for and the only real future we have.

This is the formula and a glimpse into the logical secret of life we were eventually meant to find as a race that seeks knowledge, and builds on knowledge, which places us firmly above all other organisms on the planet on a definite evolutionary hierarchy. Some patterns are invisible to the organisms that use them—we see this in the patterns of an ant colony or a bee hive, and we see this at a much higher level in individual humans or in entire societies of humans working together. These larger patterns are our life, the patterns of our ability to exist into the future. As in the ant colony, or in the bee hive, these patterns are larger than the individuals comprising them. The natural world is a set of beautiful "children's stories" with real information on the path of life in them to help the children of the creator grow to be like the creator-to internalize the patterns of the creator. Ant colonies, bee hives, and spider webs are all part of this story. The stories we write come from our natural ability to interpret these stories. For example, the children's story Pinocchio allegorically captures the essence of the process of life toward this ultimate knowledgeeven though the details do not match exactly. It echoes the larger themes of life-which makes the story a classic and attractive to many (just like ideas of sun-worship). These patterns extend across the generations, and span vast amounts of time. If we look beyond the dawn of life itself, there are patterns important to life which transcend the development of life within the universe. Any effort you spend in learning these invisible ideas and formulas presented here will catapult your creativity towards or beyond the level of the top men

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and women in your field who might have an intuitive sense or insight into these things. There is no need to sit for years on a mountain top gaining perspective and meditating toward enlightenment, these ultimate ideas are real and living in your everyday life now. You need only climb an inner mountain to expand your mind, and join the vanguard of this new world and a new consciousness of that world.

Truth is something that all life searches for. Truth is the information by which we live and continue into the future. All information about our environment and the way it works is needed to build a picture of who we are, where we come from, and where we are going. If we do not have accurate information, we make bad decisions about the future-jeopardizing our continued existence. Science systematically discovers ordered, useful information about our world. Truth is how our environment actually works together. For example, how do we reconcile the "red in tooth and claw" environment of evolution with the brotherhood, peace, and harmony ideas of religion? Truth is not what you learn in school or church, truth is not what you see on TV, truth is whole knowledge. Truth is not some parceled out or politically correct idea, it is the real deal. For example, the 55 mph speed limits imposed in the 1970's during our energy crisis were sold to the public with catchy slogans about "55 saves lives". In reality these had more to do with politics in the Middle East and our dependence on foreign oil. We accepted the imposing of traffic tickets and fines on the basis of "saving lives". In actuality, speed has little to do with traffic deaths. In several states (Mississippi, Arkansas, etc.) when higher speed limits were introduced, the traffic fatalities actually went down. Many other factors must be considered when assessing traffic risks—not the least of which are driver skills--planning ahead, paving attention, and their abilities of depth perception and cool decision making in emergency situations. Speed simply emphasizes and amplifies any of these root causes of traffic fatalities. When cars are not traveling at a uniform speed, accidents are more likely. Setting speed limits too low means that there will be a differential as some try to go a more reasonable speed. On roads where there are no speed limits, people tend to settle in at about 70-80 mph because of natural factors like how far they can see, handling, and noise. The point is not whether or not you can see all these factors at work, but that truth is allencompassing. Truth is not some thing we are told because of political exigencies such as not being dependant on foreign oil. Truth is the naked, whole, interconnected reality of things by which every single thing can be defined and known to its core. The theory in this book allows us to see behind the scenes and interconnect our knowledge in more coherent and systematic wavs beyond politics, superstition, or wishful thinking. This is the nexus and pivot of all things.

Everything gets its overall significance, physical form, and direction from this singular realm of truth. We have been unaware of the single driving force in life, and the mechanics of it, even though we have been behaving and operating civilizations according to this force from the beginning. Civilizations

rise and fall on the basis of these invisible tenets of truth. These are overarching tenets which have been made possible by our particular endowment of DNAjust as our brains already "knew about" and operated according to the laws of physics implicitly. We used these invisible laws all the time in predicting and navigating through the world. This theory, this "new" law of overarching truth, is no different. It is the pattern of ideas which guides everything. Knowing these things is the key to deep happiness and success in life, and the key to survival. We all want deeper meaning in our lives for good reasons. Applications of these ideas increase your effectiveness in life. For example, to put this in a practical perspective, if it seems like other people know how to make money in life because they are on a different level, or know something you don't, you can drastically turn the tables with the information in this book. If you are a teacher or a student, this theory is the new framework upon which you can hang the overwhelming data from the information explosion of modern society. It is the life preserver in the ocean of knowledge. It is the unseen navigator of the ocean liner of civilization itself. These truths offer a future for civilization by keeping it on track to its destination. It has been in great danger of being derailed-as will become clear as you read this book. Civilization cannot exist without the ingrained truths of these ideas. Love of truth itself is the most important constructor and sustainer of civilization. We need to consider these things when we make important decisions about our civilization. If you are a scientist, this is a way to find totally new areas for research and to have some idea whether they will be fruitful because all science and knowledge gathering will fit this pattern. There can be no more beating around the bush. We must move into the realm of these great truths quickly now. This theory will bring us together in our knowledge and efforts-greatly accelerating the pace. For example, this theory predicted the revolutionary importance and primacy of glial cells in the brain for consciousness over 9 years ago, and since then the specific predictions have been borne out in several recent experiments (discussed in a later chapter on glial cells). These experiments show glial cell effects on the activities of neurons and even on the organization and development of the brain in the beginning of a life before it is conscious. This book is about the most basic and original fundamental law of the universe which is reflected everywhere.

This one law is at the root of everything. This organizing gravity in the progression of our cognitive development is the great synthesis of all abstract thought gathered by mankind in every civilization across time--from the most ancient to the most modern. This law describes the intellectual trajectory of all life, the invisible hand within the heart of all life which shaped all life. This ultimate law also shows why the race of humanity is selected out, "chosen" if you will, above the entire animal kingdom which seeks merely to survive and gain resources for reproduction. There is another level of understanding which we can see that binds together all the lesser coherences and patterns of the animal world. The race of humans must therefore operate under a different set of moral principles than just food, reproduction, and survival. Within the race

of man, there is a hierarchy of ability to transcend these things for a greater purpose. There is also a hierarchy of ability to perceive greater purposes. Those lower biological functions are not why we are here, they are a means only part of the processes giving rise to humans just like the elements, molecules, and carbon-based chemical reactions we need to live. If you are an archaeologist, this organizing law is a sketch of the minds of our ancestors and what motivated them. If you are a theologian, this is what drives people to follow religions at the deepest level. If you like sports, this is why you do like them and why various sports follow a general pattern with teams wearing different colors and mascots capturing the team "spirit". It is also why we have sports and animals don't, and why we make war against each other and animals don't (within a species) War was a past accelerator of evolutionary processes in giving our lives to something greater. This law is the primary law of what religions call "God" with which he organized the cosmos. Glimpsing eternal patterns across events or shapes in the environment, seeing a haunting coherence, is a major reason for the development of the ideas of "God" or "gods" in the first place. Some of this coherence is haunting precisely because it appears so familiar, so like the way an artistic, organized person might construct things, so beautiful. The unseen and partially seen patterns of higher coherence, and the unseen truth behind all religions comes directly from these ideas. From the ancient idea of the sun being worshipped, the idea of spirit, and the idea of heaven, to the idea of a person being "chosen", or a people being the "chosen people", and every other modern religious idea, all of it only makes sense through this set of ideas. There is a lot of potential for clearing up misunderstandings within these ideas. A potential to eliminate conflicts in both the ideological and the religious battles of mankind echoing down through history. All we need to do is take on this larger view, take the next step in our evolution. This may be the end of religion as we have known it, where the truth finally comes unveiled into our world. This one binding and overarching theory can bring peace and unity, and a much greater meaning into our lives. It can give us much more real and useful information about our world. The coherence of this information will be like laser surgery for our inner eyes—correcting our vision to see past the "satanic verses" in all our religions. This new world view is what we have been looking for all along—a framework for the true meaning of life to enter into our lives.

If you are an outdoorsman, this theory is the essence of why people climb mountains, and even why they fish, or track and hunt (even when they don't need to—following clues and higher patterns to find sustenance). If you are an animal lover, or a zoologist, this will help you understand their world and their motivations to learn from them. This will help you to understand our connections to animals and our differences. If you are in the military, these ideas contain the highest aspiration and motivation of the warrior and the most basic, honorable, and real reason to make war at all (in protecting and building this greater pattern toward truth). It explains what affects the morale and will of troops, and the behaviors of sports fans. If you are a philosopher, this one

theory ties together and simplifies thousands of years of Eastern and Western thought-such as the relationship between the Chinese concept of the "Tao" or whole, and the isolated-variables methodologies of science. This same theory explains why allegorical and metaphoric ideas, writing, and symbols are associated with religions, religious writings, and even numinous experiences. Why are we motivated by beauty? Why do we write and read poetry? Why does it have deep emotional impact on us? What aspect of deep truths does poetry reflect, and how do we reconcile these with the equally compelling empirical truths of science? There is a beautiful, coherent, overall pattern to things running through science and civilizations across the globe, across the centuries, and across the universe. The idea of the "subconscious" is excellent. It allows the door to be opened to see invisible compelling things, even though it has been misinterpreted and focused on the wrong things many times in the past. The idea that we do things for reasons we are not aware of can be explained by this theory much better than by any previous theory. Previous theories were far too focused on immediate or proximal causes for behaviors-factors existing in the surface needs and wants within the boundaries of a single life. I have seen and gathered evidence toward this for more than 32 years, which caused some trouble whenever I tried to speak about it or relate it to others. This idea needs at least one book to properly get started—in order to supply enough information for the foundation of a new world to be laid. This theory gradually emerged from the evidence as a result of my intense desire for truth over the years. I did not think this intense motivation was unusual. I had an unshakable conviction that knowledge is the only way that the human race has a future. The evolution to whole knowledge is the most important factor for life, and seems to have a basis in our invisible patterns of civilization. We must embrace truth or we cannot survive. It really is that simple-that is the distilled equation of our lives. Knowledge is the key. Truth is the actual organization of things, not some narrow subset of reality-it is multidetermined and complex. It is very much like meaning—which is the multifaceted unity in a thing, word, or symbol. Meaning comes from the connections between things, the regularity and coherence in them. Presented here is the great unifying formula which provides an answer to most of the largest questions of humanity, and their practical manifestations and realizations in the world we live in. Like all good theories, this is an abstract idea which adds order and predictability to the otherwise chaotic or misunderstood. It explains what pulls the forms out of randomnessincluding our advanced DNA. An ultimate theory must be like the soul of our existence-that aspect of things which is threaded through everything and is the impetus and motivation for both the natural and the human world. What we need is something like the most basic primary moving principle. An ultimate theory like that is not only possible, but this is that theory, and now is the time. Every theory or tenet of the modern world can be seen and used as a stepping stone in the path of this one journey. We have found the origin of the river of life. It is a river through the air and on the earth—like the cycle of the weather and air in combination with the rivers flowing to the ocean. We stand where we

can see both the origin and the destination of life in the metaphor and allegory engines of life we see written large all around. It is available to be seen now as a result of our accumulated knowledge. It is both the apex of human inquiry and the formula by which we were created which gave us our penchant for inquiry in the first place.

Knowledge means survival. That is the most direct relationship in nature. The production of the universe itself requires that it be one where knowledge can arise, or it would not exist. Humans can live under the sea or fly in the air like fish or birds. We are at the pinnacle of the "theories of the world" followed more narrowly by the brains of lower animals. We distill and bind knowledge into a working whole. That knowledge is only rigid and dispersed in the animal kingdom. Much of the things animals do are not even knowledge as we conceive it at all. We tend to project our own perception of higher patterns onto their perceptions when this may not exist in them. Animals pay attention to certain relevant things (which might appear more or less superficial to humans) which they connect to certain other things in their own particular way for survival. A beaver dams a creek at the sound of running water, and later builds a home in the pond that is created. It does this because that is the world of a beaver's life. It doesn't know the overall reason behind the instinctual need to build a dam. It cannot explain its behaviors, the beaver simply lives according to this invisible "theory" or drive in order to survive in the future. It would not be here for us to see if it did not follow this pattern and act according to this pattern of coherence. In effect, what it does is all about the future. It does things in the present because of motivations it has now or it would not exist into the future. All life is the same in that regard, until the love of truth, order, and coherence gripped the human heart. Humans can study animals and learn about the theories or unity we see behind the animals behaviors. We see that there is a unity and purpose to these behaviors because we connect lots of information beyond the world of the beaver's perceptions and immediate reactions. We connect information going beyond the limits of the survival apparatus in the beaver. This survival apparatus is more tightly connected to the practical constraints of an environment. We scrutinize and mine this apparatus itself for information-leapfrogging to the grand principles behind these sets of reactions. We know about the forces which shape the behaviors and physical adaptations (large, sharp front teeth in this case) of animals, but the animals are not aware of these things. These patterns all revolve around the great unifying theory of formation of species in evolution. Even though humans have learned to see and think about implicit processes such as physics, we still have huge areas of underlying unity to our behaviors that have remained hidden to us just like the beaver. Whole civilizations do things unknowingly like the beaver, or like the ant or bee colony whose pattern transcends generations of individuals that make up the colony. Even the queen in the colony does not "know"-she looks like she controls because she is a focus of what is necessary for the reproduction of the colony, and commands resources for the job, but the queen is set up with all the reactions to do her job too. The queen does not generally

venture out into the outside world where the patterns of other organisms might harm her for good reasons. To use a little creative license to make a point, a beaver might "think" it likes to gnaw wood, it is attracted to trees. It might hear running water and feel a need to drag the tree parts there, once its gnawing has toppled the tree. Then it might see standing water and feel the need to swim, and in swimming feel the need to build a home. There is a unity to these things which we see, but the beaver may not. It is free to do what is in its "heart". The motivation it feels serves the purpose of survival and fits into the world of reality by its reflection of the unifying principles of shelter from predators and survival. It seems as if the beaver "has" this knowledge, but it does not. It is a set of relatively simple reactions in an environment which add up to a coherent pattern which allows it to continue into the future. It has emotional propensities connected to experiences it receives from the outside world. There is a larger knowledge or pattern reflected in this set of behaviors which is invisible to the beaver, but is one of the great truths that humanity has found. We have learned to distill this invisible unity directly because it frees us to follow many different paths of survival, and move into many new ecological niches using larger and larger approximations of whole truth. Only humans question their own desires and understand them. To the extent that we do, we are human. That is what marks us and enables the fantastic larger patterns spanning thousands of years to arise via our greatest minds.

We learn that seeds grow plants and set about planting and growing them, instead of eating the seeds or some other short-sighted pattern. We learn animal care and raise animals for sustenance. We have developed an ability, through our greatest minds, to see and distill the unity threaded through the information passing through our brains, and have become much more able to survive as a direct result. We have been able to do this by developing the ability in our brains to see that the universe is constructed with unity running through many different events and processes. All life is characterized by reflecting this principle in its behavior-again, as an ant hill has an organized coherence to it across time-whether the ants see it or not. We see a unified pattern to it. A familiar and meaningful pattern. The pressure of unity, the pressures of future patterns, organize behaviors. That is the pressure of life, whereas evolutionary theory tends to focus on the selection pressures of limited resources and death. Humans do not just act as if there was unity, as animals do, we have come to know and follow unity itself as a basic principle, the most important principle. This explains our faith in the scientific method. Judging from the facts of science in which our lives and creativity depend on invisible or unseen unities, we can further gain insight into our faith in religions as attempts at extrapolated ultimate unseen unity in the patterns-(God or gods). An advanced mind can see the patterns. To the extent we are advanced and follow pure truth, so can we. Patterns of unity have certain characteristics of their own. The patterns of unity tend to repeat in approximations, hierarchies, or echoes (more on this later). Brains operated according to unity because it meant survival. Unity and meaning pull us forward—it's the gravity of life. Patterns in things are the unity

and coherence that bind them together and make things knowable. The information in this is part of the natural processes of the universe. The ultimate unity that exists in the universe is also similarly invisible but vital to the existence of even the universe itself. Certain types of elements have uniform "behavioral" properties, for example. The simple immediate reactions of subatomic particles add up to the complex and beautiful universe we live in. Our written natural laws are all about the behavior and character (distilled unity) of the physical. Uncanny human manifestations of this ultimate unity have begun to arise in many civilizations. These manifestations were previously transparent to us except for some haunting, inadequately explained motivational tropisms—just like the beaver and the water instincts mentioned earlier. It is time for us to wake up to a new world, to open our eyes and read what the universe is "saying". In effect, we will become a new species.

We have a flexibility borne of higher level understanding and control of our own brain processes. A higher purpose naturally comes from higher knowledge. We bring our knowledge together to see patterns that transcend the rigid behavioral programs and incomplete worldviews of the animals. We use a lot of the same basic patterns of the world (physics, light perception, etc.) as animals, but we use metaphor and analogy to explode this knowledge onto the larger world precisely because these patterns themselves echo and repeat throughout the physical world like physical metaphor or analogy. Our brains apply the same brain areas, or approximations that echo in the world, to different aspects of the world similarly constructed by symmetrical natural laws. A well-rounded education provides the symmetry of understanding that allows information to build on itself in many additional areas and decreases the likelihood of confusion or deception. Consciousness is like a great internal satellite dish which gathers signals and focuses them together, then displays that unified information back to the distributed lower brain centers, or to the forebrain, so that they can reflect this higher information in imagination. The parietal lobes seem to be a good candidate for the translation, understanding, and transmittal of unified information in combination with glial cells because of their activity and location, (more on this later). We have learned to use lower brain centers (lower "distilled theories") for information. We see basic patterns which we project and apply to other things. We are not just mindlessly compelled by them for no conscious reason. Our higher brains are the growth of understanding of these things. This allowed us to be creative and distill the millions of years of information packed directly into these patterns from evolution. Metaphors have their roots in these more basic biological or physical things as research and analysis of popular metaphors of speech have shown (Lakoff and Johnson, 1980; Lakoff 1987). As an example of this higher-level understanding, "fear" is the distillation of millions of years of experience. It contains information if you watch it carefully like a stockbroker watches fluctuations in price charts for regularities, and keep in mind many past scenarios which may have given rise to or shaped these things. You can watch your own attentions, and even your own thoughts this way with practice. Other

people greatly expand our ability to do this. We see in our spatial metaphors (trajectory, leap, angle, to bring together, connect, etc.) that we use the patterns of these lower animal brains to "say" something larger about the world we live in with our language ability. We also can now see that perhaps our analogies, symbols, and metaphors work because there is a fundamental unity echoing through everything in the universe which has also taken root in our brain. This is absolutely logical, because our brains reflect the underlying patterns in the universe whether we realize it or not-survival is based on this. Pressures to reflect the actual universe are intense. Evolution is pulled forward by meaning and knowledge, not food and sex. We have been shaped for pure knowledge gathering, and we are motivated to use it creatively when a challenge arises. In this book, we find the ultimate pattern, the original purpose and trajectory of all life. A holy man on a mountaintop may know the truth of this unity which is the source of life, and be filled with a numinous haunting bliss, but he cannot trace out a path through all life and knowledge of this unity. Our task in this age is to trace out this path, and build a stairway, in order to have a future. We need to trace out the path of life to become aware of it. This is how we will see the reality behind the feeling of coherence, the religion, which is only a beginning. The world is about to become a very different place. The ultimate unity is now becoming one with life. The best of the best among us are rare combinations of genetics which allow this higher vision. We may be developing genetic technology in order to upgrade humanity to meet the promise of this event and new age-to quickly increase the distribution and likelihood of these genes. These kinds of considerations are more cogent explanations of our behaviors, and our civilization.

To lesser or greater extent, we see and can change our thinking depending on how well it fits the patterns we see in the world. We scrutinize and bind the information in our own brains by learning to hear what our own brains are saving about the world in the processes that take place within-beyond the specific events themselves. We can see beyond the "cultural" explanations of behaviors such as "I'm feeling sad", or "I feel blissful" verbalizations. This scrutiny and binding allows us to survive better and be much more creative, and even to have empathy and relate to each other better. Just as our own individual consciousness binds together our experiences across a lifetime, and also binds our localized and distributed brain processes within, there is a pattern to the universe itself which organizes exactly like this. Without this pattern, the physical universe could not exist, just as unity is the force which ensures life on Earth exists. The everyday manifestations of this principle are haunting because they are the life force itself, and the fabric of existence. There seems to be an end-point to this trajectory in life which progressively binds the universe into a coherent, logical, and powerful whole. This universal pattern of the universe is echoed at different levels by individual brains, by the events in the universe, by life, and in language. That is how we are able to learn anything at all, or to distill and make use of knowledge--as you will see. Without fundamental unity, there would be no echo of forms for us to construct languages, analogies,

symbols, and theories upon. It is the fundamental substrate and origin of abstract thought which is the process of binding knowledge together in experience (whether by memory and verbal behaviors or, more rigidly, by DNA and propensities or motivations from selection, or by both). There is a quality to the universe which allows us to distill singular patterns which apply in many different situations or experimental contexts. All symbols, metaphors, allegories, and similarities in form use this one underlying substrate. Through this one raw material of intelligibility, all coherence is built. All forms echo through this substrate like the echo of forms in living nature points to a common ancestral unity in the origin and development of life first outlined in Darwin's Origin of Species. I call this echo of forms reflected small and large across the universe the "LOGOS ECHO". There is an overall theory of everything that makes perfect sense, and it is the crowning glory of civilization and the search for truth. It is that metaphorical "flower of immortality" from the epic of Gilgamesh—our oldest known written story (or poem) from 5,000 years ago (Grundy, 2000). It is not just simple coincidence that we will be overcoming death from old age at the same time (same time generally on the grand scale-recent genetic telomere research points to this for example) that we find the ultimate and most immortal law of the universe. This ultimate law of the universe is the reason that we can write and make symbols at all. It is why we exist. Like the theory of evolution, this theory is the only theory which can bind together the vast amounts of data in our otherwise diverse realms of inquiry.

Recent evidence (J.R. Mureika, et. al., 2002) shows how patterns can be derived from seemingly random, totally abstract art by mathematically distilling geometric fractal patterns. These can show the school of art the works came from, and are even a signature of the artists in a way—they are that reliable. Here is an excerpt from the rationale behind this study of fractal patterns in art:

The notion that nature can be described by fractal geometry was first suggested by Benoit Mandelbrot in the early 1970s. A fractal is defined as a recursive, self-similar structure "whose parts somehow resemble the whole" (Mandelbrot, 1983). Mathematically, these are defined as

$N(d)\infty d^{Df}$

In our abstract concepts, the particulars are "haunted" and "directed" by the unifying theories we see in things. In this unifying theory, the forms of all life, and even matter, fits the definition of "fractal" cited above in relation to this grand theory. All parts reiterate, and reflect the whole of which they are a part. Moreover, the forms things take in the universe beyond Earth reflect the underlying unity which allows existence and from which existence logically sprang (more on this later). Further, this particular mathematical study (J. R.

Mureika, et. al., 2002) points out how the previous studies of this nature were too simple:

Rather, the significance of the fractal dimension is much more complicated, and involves a complete study of the multifractal spectrum of the image. A multifractal is a clustering set whose overall form is a complex weave of infinite self-similar structures, which have been shown to describe a myriad of natural phenomena ranging from trees to the large scale structure of the universe.

If you are not a mathematician, don't be put off by the math. I just use this example to show that there is a hidden regularity to things which is highly logical and descriptive, even mathematical. It is predictive as well. I had a chance to see Benoit Mandelbrot speak some years ago, and he said that it surprised him how many people became interested in these relatively simple fractal mathematical ideas. As you read on, you will see that the motivational significance of these ideas for people comes from the beautiful patterns, the haunting beauty, and the qualities in the recursive pictures formed from the equations-which will become clear as you read how the universe was formed and actually works. The theory presented in this book is symbolized and echoed by the new mathematical process for abstract art outlined in the above study, and described by multifractal geometry, but these mathematical models are approximations. The patterns are written large across the universe and within civilization itself, and only require an advanced brain to perceive in their delicate and complex beauty and order. The "complex weave of infinite selfsimilar structures" is a key phrase in that fractal study. The predictive and explanatory value of this theory is underscored by the near perfect fit of these mathematical fractal theories to the idea of the logos echo. The universe is patterned like this and that allows it to be read like a book beyond the mechanics of its scientific causal and mathematical relationships. Physics can describe the fission and fusion processes that take place in the sun, but the shape, power, and relationship of the sun to life on earth has a meaning which points to a basic pattern according to which the universe and life itself were constructed. These patterns hint at our future. The shapes and patterns of things in our universe have an overall meaning together into which everything fits. The artist in this omnipresent pattern is what religions have mysteriously called "God". This is the theory of meta-evolution-the theory of the evolution of existence itself within which the evolution of life and consciousness takes place. The evolution of life and consciousness echoes this meta-evolution of the universe. The mathematical formula in the above theory is a snapshot, a token of the potential explanatory power for all humanity contained in these patterns written across the fabric of the universe.

There are two aspects to this theory—just as there are two aspects to any artwork that a human might do. There is the pattern, and then there is the media in which the pattern is expressed. There is the meaning, and also the materials with which this meaning is constructed and displayed. Between these two very real realms, symbolized by art and poetry itself, a complete description of overall reality can be obtained. An amazingly powerful one. There is a hierarchy in the repeating patterns of existence, just as the mathematical analysis of seemingly random art echoes the overall theme of this book in microcosm (on another completely coherent level—just like analogy or metaphor). The idea that we can distill out themes in the seemingly random and disconnected patterns by paying attention to repeated information is important. We can even gain insight into who the artist is. Meaning comes all at once, it is a binding together of relevant information. If there is information left out the meaning becomes twisted and cannot be seen fully. The connections cannot be made. That is the situation we have in our world today. Once we know the mechanics of the universe, we can begin to see the meaning of it properly. A great work of art builds a singular meaning with shapes and colors and how they interact across space and the intervals of our experience, and a great poem captures meaning with colorful words. The universe also has a great meaning. That great key meaning is that meaning itself is a part of the way the universe is organized--automatically. Descartes said "I think, therefore I am" but he really should have said "I am an organizer of meaning, therefore I am". Nothing can exist without meaning, and humanity is doomed without following the meaning built into the universe and life. These meanings point to the origin, path, and trajectories of life itself. The development of communication systems across the globe, the growth of the internet, the recent explosion of science, and the rise in the power of technology, are all foreshadowing the development of a real unified theory of everything (not just for physics). They are providing a nest for the hatching of ultimate truth. This is truly an exciting time to be alive. This is where it all comes together. This is what we all have been searching for: truth and the meaning of life.

This story starts at what I consider to be the most "holy" structure on earth—the brain. Religious terminology is applicable here, even though the reason I think this structure is holy is because I have studied it with science for so long. This structure is not a cathedral or a holy mountain—it is more. Those things in the world are only reflections of the universal higher meaning described by this theory. This meaning, this unity behind forms, flickers across the images within our own brains as consciousness--just as it does in the external universe of matter. Consciousness is this binding force which distills out and recognizes meanings, or configurations of patterns with motivational significance, within our brains. Things in the world have a haunting meaning because meaning comes from the unity which gave rise to the universe and provides the coherence in it. These meanings are "haunting" only because people were unable to see them fully. They have been apparitions of another world--which will now be revealed. Symbols exist naturally. Because of your

brain, you are a time traveler of sorts, and that is not an empty analogy when you consider that space-time allows information to exist. Your brain binds information across time and space so that you can survive, so that you can exist. Your existence is based primarily on the process of binding together events and things through time and space. This is an extremely important concept to this theory. Our memories focus past experiences across time onto problems of the present and toward purposes of the future via our consciousness. We bind our own "universe" of experience together in the unity of consciousness because our brains reflect an actual underlying principle of the construction and operation of the universe itself. The material universe itself would not exist without this kind of a binding factor. By learning and distilling enough knowledge, we can arrive at the ultimate meaning and unity which totally transcends space-time logically. The logical transcendence of space time in this manner gives rise to all our knowledge and theories which explain things. This transcendent realm is truly beyond all the things in the universe, and exists as patterns and power in our minds. We become one with what made the universe, and exist as though outside it looking in both metaphorically and literally since these patterns are not "located" in the universe we see, but reflected in other things—in information, shape, and form. Knowledge cannot be "located" in space and time, because it transcends space and time by definition. When we read a book, the patterns of meaning are built in our minds-they do not exist in the book itself. The book is paper and patterns. We build something invisible and more unified by reading. Light is invisible and colorless passing before us, but we can tell it is there when it hits something and is reflected into our eyes. Unity is the same way, only we use our "inner eve" or "third eve" to see it as patterns across things in space and time.

Cathedrals and mountains find their motivational significance, or their way into our hearts, minds, stories, and cultures, because their shapes touch upon deep truths about life. We can make our own symbols with motivational significance, because our minds see this natural meaning in nature. Mountains are dangerous climbs full of peril that return an overall view of the land below, a new perspective. They are climbs toward the sky, the realm of the sun or the heavens of the gods, the place of "pie in the sky" abstractions and plans. The place where ideas come "out of the blue". Spires and steeples capture this skyward path as well, spires coming to a point in the sky. The evolution of life has been moving toward a point in the future where we will see the ultimate perspective where it all fits together. Life has been climbing a mountain in the material world to reach this heaven of ultimate unity in meaning and knowledge. It is also finally time to plumb the depths of the ocean of our existence, after roughly 14 billion years of constructing these hidden things. There we will find our hidden heart. We have been crossing a covered bridge to higher consciousness. The brain is the quintessential holy structure, and its objective is the ultimate unity which constructed the universe. It will become apparent that the universe was constructed by the time you have read the evidence, and seen the greater coherence, predictive ability, and logic that this

theory affords the universe of ideas we live in. I only use religious terminology because these ideas show the value to science of religious ideas interpreted correctly and the value to religion of these new scientific ideas. This theory is the unity behind both of these—science and religion. This holy biological structure we call simply "brain" is a Michelangelo of staggering proportions--painting the poetry of the universe across our consciousness where we distill out higher meanings in order to survive. Meaning is written into the universe, because meaning is a natural law of the universe—the most basic law of all.

This higher meaning capability of brains derives from the patterns of the construction of the universe itself, and is the handwriting of what religions call "God", or "gods". A brain is formed in the unforgiving laboratory of evolution to find regularity and coherence, to reflect the functioning of the environment accurately, because this allows survival. Brains are theories of the universe plugged into the needs and hungers of biological necessity. It is important to realize that when I say "poetry of the universe" above, I am referring to the rhythmic regularity and haunting beauty of the forms things take in our universe. Therein exists the root of all information. We have soul-stirring feelings about these things because we reflect (in our construction) how the universe was constructed and see the haunting meaning and power of these symbols by doing so-the "secret natural laws". Poetry touches us deeply by symbolizing this rhythmic regularity that we have sensed as though it were shadows moving on a cave wall, or things seen through a glass darkly (two popular metaphors originating from Plato, and the Bible). We are drawn to these things, and to things we call "beautiful", etc. The metaphors of poetry use this quality of brains and universe to awe us into perceptions of beauty. This rhythmic regularity factor is the ultimate source of all the motivational significance in things that we move toward or away from because it is the source of coherence and intelligibility in the universe. Our brain is moving into place as the pinnacle of all life, the summit of the ascent of knowledge of all mankind throughout our history. This brain of ours is the translator of the "Logos" of the ancient Greeks, what they called the divine writing or coherence of our enveloping universe that moves us, and moves through us-which also is the first historical reference to something resembling our ideas of monotheism (see Armstrong, 1993). These ideas of the Greeks are what was eventually developed into the more widely known monotheistic ideas in the big three religions of Christianity, Islam, and Judaism. From this alone, we can see the common root of not only the three monotheistic religions, but also of science. Einstein said that the most incomprehensible thing about the universe is that it is comprehensible. This book shows how this comprehensibility, this haunting coherence, is not mere coincidence, nor is it incomprehensible. Stephen Hawking wrote: "What is it that breathes fire into the equations and makes a universe for them to describe?" (Hawking, 1988). The source of beauty in both equations and diamonds, the "fire" in the equations and the sparkling "fire" in diamonds, is the same as that forged in brains as they gather knowledge and

coherence. Intense temperatures and pressures form a diamond out of dark, opaque, soft carbon, just as the intense pressure of selection in evolution has forged brains through which flows the light and fire of the universe out of carbon chemistry. Through an ordered crystal diamond, the clear light of the universe can flow, and all the colors can be seen glimmering in it. A diamond is the hardest natural stone which can shape all others, but it is still only a symbol—a nexus and echo of higher principles—an informational approximation and echo of other processes. Physical poetry. Our brain is the real cathedral where consciousness and the universe truly come together, a place where the clear light of the universe becomes a unity of creative force shaping our environment.

Consciousness studies are the place where both religions and science logically come together. The root of both religions and science are unearthed by considering the nature of consciousness. They are inextricably relatedconsciousness studies are the coming together and organization of these two types of information about our world at this time of unprecedented information explosion in civilization. Science studies data first, and develops progressively more unified theories as a result. Religions are attempts at higher theories (meaning) by collecting the unity we already perceive through a glass darkly (because of the way our brains have been constructed). It then projects these incomplete ideas onto the specific events of the world. We have a bottom-up and a top-down view in science and religion. Together they both are "saying" that there is a unity behind things which is important to our survival or to our future. Each has a way of viewing the world which is essential, and by weaving the two accurately together we liberate much more useful information from both. E.O. Wilson's Consilience, the Unity of Knowledge (1998) is a foreshadowing of this theory. So is Fox and Sheldrake's Natural Grace (1996). There is real information in religious writings and preaching that scientists have considered useless for their work. It is not useless-the metaphors and references to things were full of information. The information came from the content and meaning and also from the mechanics and effects of the words themselves. I used the "through a glass darkly" metaphor above, and much of the talk of sin and other religious concepts can be much better understood via the information made available in the modern age. Survival from following truth was a goal of religious ideas, for example. The information available in those days was limited, yet they still needed to talk about these important things in some form of approximation. Just as lower brains approximate the conceptions and reflect the workings of higher brains, so does the speech of those with more limited information echo and follow the truth even if it was incomplete. These metaphors I use are part of the theory, and have been subjects of reverence and study in both religion and science. This is no mere reminiscing on the beauty only glimpsed fleetingly through a life, or a bland tome on the march of science, this is the source of all beauty and the reason we value wisdom.

Like an old man looks back on his life and it all seems to make sense, the time has come for life itself to do the same. That is not just a convenient metaphor, it is reality. Reality echoes in metaphors. That is how the universe itself works. We have space telescopes peering back to the early history of the universe, and archaeologists peering back into the early history of humanity and all life. A life recapitulates the life of the universe itself in the end, and it is also a new beginning, a new stage of life itself. Science looks for the "artist" (i.e. the unifying or mathematical theories) behind the patterns of nature. Religions look for the "artist" in where the patterns of nature are leading and pointing, via the similarities we can perceive between the unity in our own consciousness and the dimly perceived unity in world events and the forms of nature. This is the "felt" overall coherence, and how it touches our hearts like poetry. Before a theory becomes accepted through evidence, it is first "felt" by a researcher. The "theory of everything" of the physicists, and of religions' "God", are echoes of the same thing. They are just starting from different directions. By weaving these two world views accurately and completely together, we will actually reach that ultimate unity. We will weave the grounded truthful roots of science into the higher patterns and aspirations of religions reaching toward the sun of our future. They are complementary-like a chalice full of wine. The old, spuriously unifying ideas of "Spontaneous generation" explaining the origin of certain organisms and "phlogiston" as a substance which explained why things burn, were replaced by the much more powerful and unifying ideas of biology and chemistry. In the same way-by removing or modifying notions of magic and superstition and replacing them with real information-we can move into the realm of religion with human inquiry. We can remove the pitfalls and imperfections of world religions by uncovering their source and foundation. By doing this, we also uncover the foundation of the universe. All science, all astronomy, all inquiry, is an archaeology of this one truth. An archaeology which assures our future, just as a man uses memory and knowledge to be creative and overcome challenges in his own life. This is the root of civilization and the goal of life. The laws of the universe we uncover will show us that the survival of all life on Earth depends automatically on knowing the things contained in this overall theory-exactly like the inevitability of other natural laws, because this is the ultimate natural law.

Like the monoliths of Arthur C. Clarke's 2001 a space Odyssey, we were meant to find this knowledge and we will be forever changed by it. Solving the "binding problems" (the disparity between unity in experience and the distributed nature of brain processes at the physiological level) of consciousness research touches upon everything we know for a reason, and answers many of the deepest questions of mankind. We just had to get to a point in our knowledge where we could see these beautiful patterns which Goethe thought might otherwise be "hidden from us forever". Physics was perceived dimly in consciousness until Newton's theories, although we certainly operated physically according to the principles of physics for millions of years. These great controlling theories existed well before we described them

in our science, and this theory is no different. These beautiful secret natural laws of science used to be hidden, just as the root of all natural law was hidden from our direct consciousness since the beginning. There is a time for even these ultimate esoteric things to become known, and to reach a new level of motivation and a new hope for the future. The new science of consciousness studies is the bellwether of this enlightenment.

Monotheism as an idea shares many features with the idea of consciousness in the brain (so do all other religions-including Hindu and Buddhist religions). The American Heritage dictionary defines LOGOS, the root of our modern monotheistic concepts, as "Cosmic reason, affirmed in ancient Greek philosophy as the source of world order and intelligibility"; "Reason, or an expression of reason, in words or things"; and "The selfrevealing thought and will of God". The word LOGOS is also used to refer to speech, words, or reason. All of these things require the recognition of patterns of information that reveal meaning-a way that information is organized itself-which indicates a unity in origin, a coherence, or even a train of thought in us. I mean this book to be the "golden spike" that joins the "tracks" of thought from East and West-to put it metaphorically-by showing a third implicit factor that binds them (in this metaphor, that would be the idea of expanded commerce and development as a result of the completed transcontinental American railway back then-which would bring the two coasts essentially "closer" together through time and space, binding them). The meaning of the golden spike was not simply that "we are done with this arduous task and can now rejoice that the work is done", it was a much larger meaning combining lots of history and information. The meaning included the past and the purposes of the future. It was a highly meaningful and symbolic act. Metaphor, analogy, allegory, symbols, and other similar ways that our knowledge is structured and interrelated, are very important to understanding the origin and nature of consciousness. The building of these types of railroad, pony express, or telegraph structures for civilization facilitates commerce, but also facilitates the building of unity and the flow of information. FedEx, with their central hub in Memphis Tennessee, is a beautiful expression of this-where millions of packages come together and are distributed again overnight with the incessant rhythm of a beating heart. It is also symbolic of the unity of consciousness and the radial structure of meaning. Fred Smith, the founder of FedEx, had a beautiful vision of the future and the deep trajectory of mankind in the business model he invented. This structure is almost a religious symbol for mankind and our motivations. A beautiful symbol which also works to sustain itself-such are the images and power of free commerce; they reflect the building and operation of the cosmos itself, of the logos. They reflect the whole, the "Tao", of which they are a part. Mr. Smith is a builder, among many other great builders this civilization has had, who reflected the glory of our future. Henry Ford had a vision of a country filled with automobiles bringing it together and increasing commerce and the connectivity of the nation. He actually said that if he thought he was just producing gadgets he would have quit long ago. Much

of our advertising emphasizes the "spirit" of the company, behind the effort and quality they put into things. We even call our highways into and out of our cities "arteries". These things are vital to a future which contains the unity necessary for us to survive. Physical (through time and space) and informational unity go together. The former is a practical application which both symbolizes and facilitates informational unity. These meaningful interrelated patterns of structure themselves are unavailable to, but complementary to science. Meaning exists on many different levels of organization, but it is always a unification of information around a pointwhether it is a word, a statue, a building, a person, a flag, a theory, a concept, or whatever. The unity or laws behind events and things are what make them intelligible and coherent. The relationships of a word to other things and to the context in which it is written gives meaning. Instead of saving "god of the weather" we can now say "the rising warm moist air forms these clouds out of water vapor, and when cold air moving from the north hits this warm air full of moisture, it condenses out and falls to earth as rain". Instead of "the sun god is angry and sends clouds and lightning" we can say that "areas where the sun does not hit as directly or intensely contain colder air which moves south and collides with areas more directly under the suns influence and rain, thunder, and lightning result". We can even learn to predict these things as we watch the patterns. The unification of information has POWER in it-it allows creativity and adaptability. The unity found in meaning has survival and motivational significance. Things are meaningful because past experiences and future purposes come together from their distribution in time and space onto these points in consciousness. Consciousness is the time-transcending point we create by bringing our knowledge to bear across the diverse locations we find it—just as consciousness within an individual brain is the unity we experience as a result of widely separated brain processes. In consciousness studies, this disparity between the experienced and the physiological is the binding problem we see when we compare unified conscious experience to distributed brain processes, but you can see that the problem does not end there—it has a larger reflection in the world around us. What gives rise to the unity already existing in things which we try so hard to apprehend? This has traditionally been the origin of religion. Everything that life does is all about capturing the unity of the universe within and therefore increasing survival adaptability. With a prospector, this would be called mining or panning for gold-to use another metaphor. Gold in this metaphor is an eternal metal which is able to increase your ability to survive materially-a real physical symbol of what we do with knowledge gathering. Gather enough of it together and it drives and sustains life. Gold was thought to be the substance of the sun god fallen to earth by the Egyptians. Gold shines like and looks like the sun. Gold is motivationally relevant to our highest minds because they see timeless meaning in it, in this way they share in the understanding of God in their souls-to use the terminology of religion. The God-kings of Egypt used gold liberally associated with them because they saw this. We know now that the color of gold comes

from some mysterious relativistic effects (beyond normal space-time) of the electrons in the outer shells. Metaphor is all-important. It is a quality of the universe because of the unity threaded through the universe itself like unseen veins of gold underground. If you do your homework and learn geology, you can begin to predict where gold might be. People of older civilizations might think such an ability was "knowledge of the gods". We might view this as superstition, but they might actually be correct and accurate in their assessment from their more limited perspective. They realize that knowledge and power, knowledge and creativity, go together. To be aware of or conscious of greater levels of unity is to be like God—the posited source and ultimate binding unity of all things.

The nature of this unity we find threaded through everything is like that found when we read a book—we know there was an author because there is a theme, a plot, an organization to things. The author of much of the cause and effect relationships in the universe is found in our physical theories in our science. However, we have no theories about the origin of meaning. We have no scientific theory about why the natural laws are the way they are, except that if they weren't, we would not be here. We have no theories about the qualities and distribution of the elements on earth. We have no theories about rare and meaningful events, or the origin of single important events like the birth of a new species through a highly unlikely beneficial mutation besides just to say they are random. They are not. The author in this story of life is the ultimate unity in abstract thought we find at the pinnacle of the information we are accumulating in the information society. This is echoed in consciousness studies only now emerging within the vast accumulation of knowledge in our science. Authors have favorite words, or turns of phrase, which are used repeatedly—like the symbols which repeat in the world. They build characters in a story by placing sub-sets of unity in the characters named and developed in the book—like the characters and life forms we see in the real world. All of these elements of coherence or unified structure are evidence for consciousness in the construction of the book which is, again, not available to isolatedvariable science. This is real information, important information, not available to the methodologies of science. The universe is like a book, and our rarefied language abilities are developed from our earlier biologically-ingrained ability to perceive symbols. We have begun to reflect the underlying symboliclanguage nature and construction of the universe itself. We reflect the thoughts and methods of God by using language and uncovering/constructing truth with language. The words are not random in a book-they indicate lines of ideas leading somewhere, the plot builds, and there is foreshadowing. There is resolution when the elements and lines of story construction reach their apex. The overall patterns that literary works follow, and the patterns of the literary devices used in them, such as foreshadowing, are reflections of how our brains work because books are distillations of our ideas and perceptions about the real world, about how our brains perceive the real world. Books are a recent invention-our brains were set up to notice information in this manner prior to

the very recent invention of books. This gives us further evidence of how our brains work to apprehend the real world--much as Isaac Newton might have watched a game of cricket and noticed a regularity in the motions, and uncanny ability of folks to operate the game. Unseen patterns. The apple falling on his head simply drove home the point. Books are no different. We can learn a lot about ourselves from our relationship with words and books. The invisible patterns in a book are why we read them. They can be paper or electronic-it does not matter. The configuration of information, the configuration of the elements in the words, gives the same meaning across media. We can even say the same thing in different ways (using different symbols), and that actually enhances our meaning and learning of concepts. Only science would say they are different. Science does not perceive things which are only related by common meanings. I will show that this is an important component to the construction and origin of the universe and life-a valid source of knowledge about our world. The world, and the universe, are built like the world we see in books. Our brains find unity behind experiences. We read books. Even our mathematics are a metaphor that works uncannily like the outside world (Lakoff, 2000). Literary devices in books such as allegory, metaphor, and foreshadowing are also found in the structures of the natural world even though science has nothing to say about these. When we learn, our consciousness is built in us in the same way that we build meaning in books. The "greatest story" ever told" is a phrase sometimes used to refer to the story of Christ in Christianity. That may guite literally be true if you consider that it is a story of the "LOGOS" becoming flesh-which is, in this context, the story of the culmination of evolution and the journey of all life in the flesh as human intelligence and perception of meaning from "God". The meaning of the universe is the "will" of God, just as the plot, symbols, and coherence of a story is the will of the author. We tell stories to children to teach them to survive, because this is what the universe has done for us. We transmit the eternal truths and meanings which we have apprehended. We make them available to our children knowing that they have similar motivations and will value and heed these things. Our greatest and most motivating books portray previously unutterable truths in their stories which we resonate with. They capture portions of the "will" of the author of the universe.

First, life learns about the universe (its coherence) physically through the selective process of evolution to the extent it can. Second, life learns about itself—its own brain—to match the coherence of the universe and be CONSCIOUS of it at a higher level. Life begins to collect and unify knowledge exponentially, writing it down and making it available to future generations which it increasingly sees as ONE with itself (part of the time-transcendent nature of consciousness). The "self-realization" of the Hindu religion neatly applies to this theme. The highest level of consciousness is to realize how our own minds work. There is information there that transcends anything else we could learn. Eventually, the universe is "realized" in us after we transcend the automatic or lazy reactions (what we call personality, social skills, or other

patterns which get us what we need to survive now). These are the reactions to things which can easily transport us through life without any progress or thought. On a higher level, these are like the divisions of academic inquiry and research which serve more specific purposes. The ability to encompass and transcend these divisions is a rare genetic combination of vision and motivation. Those organisms who do not have this vision, do not know it when they see it because it does not exist for them. Those who have developed this ability might notice the coherence of the behavior of others and project this higher ability onto their behaviors when it actually does not exist. The dangers and pitfalls to our future of these errors and deceptions in invisible intellectual environments are just as real as those in the old red in tooth and claw environments of classical Darwinism. There is an Indian parable of the "blind men and the elephant" where several blind men describe an elephant differently depending on whether they are feeling a tusk, an ear, a tail, the side, or the nose of an elephant. They argue about which one is "right", not knowing or seeing that they are all touching different aspects of the same thing. There is an unimaginable (to them) coherence connecting the parts they plainly perceive and verify with individual touch. An external observer might think they had this transcendent knowledge-since they are obviously touching the elephant. It is only upon careful investigation and questioning that you see the all important pitfalls of their blindness. The ability to fully see truth brings peace among those capable of seeing it, and peace was really only meant to come then. All life seeks to represent the patterns of truth more completely. In past human societies, everyone adopted the styles or edicts of kings. This is a reflection of reality, a grand play. All of reality, whether we have seen it or not, adopts the style of the "king" of life existing in this unity. All forms echo from and are different aspects of this king of order and coherence through time. Science has investigated and shown that ants have a complex social organization, but that they are not aware of it at all. They cannot see even their own lesser patterns. Individual animals in nature fight each other blindly while we see the continuity across the species in the ancestry and driving forces of evolution. This theory shows how ALL our knowledge is like that. For example, religions are the blind men touching individual aspects of the unity of consciousness which "wrote" the universe. This law is responsible for its literary patterning. This is the "elephant" of the universe which they have been trying to describe in confused languages-confused only because they lacked the unity of information to describe it adequately-information that is now available. In this way, the secret of consciousness is also the ultimate unity in religions-that thing which binds them all together. There was a transition from matter to life where DNA began to be the depository and nexus of information reflected from the universe for the continuance of the organism. When learning and culture became dominant even over the biological urges, we were at a point where knowledge collecting itself became most important. We were able to bring enough information to bear to be creative. We did this by knowing the contingencies of our own survival and of the world well enough to predict

things and use memory to overcome obstacles. We began to be creative and inventive in new ways, unfettered by the rigid directives of DNA. Soon we began to just collect information for information's sake because information is power. Those who were motivated to collect working knowledge could be creative and adapt and survive. This information began to be knitted together more and more as we collected it-we began to see greater connections between things. We exponentially began to build on this ability by constructing new senses-instruments and prostheses to extend our vision into previously dark areas of the spectrum, into space, and across vast expanses of time. Finally, we are at the threshold of another phase change—one where we will use this knowledge to actually increase our ability to see these things in our own DNA directly. There is no doubt that we will have to take control of our DNA, of our genetics, in the future if we are to have one at all. We must be able to sustain the unity of information, and we will need to enhance our ability to do this. Doing this brings peace, and our increased technology makes war a losing proposition for everyone. The history of our development since the beginning has been a path towards the point when we would naturally be able to take control of these things.

As a part of the path to knowledge and creativity, the greater survival of individuals of all types from the "softening" of the environment (not as harsh as in the past-medical advances, food availability, etc.) means we will need to monitor the ever-changing and mutating genes for the introduction of noise. The general idea behind evolution is toward whole knowledge, unified knowledge, and if we neglect this area we will be lost. We cannot afford blind spots now when things are proceeding so much more quickly than they ever have in history. We have half shut down the contingencies of evolution (softening of the environment) which made us what we are, and to complete the transition to the next phase of life we will need to go the rest of the way and completely take control of the genes upon which this all depends. There is simply no other way--anything which is built half way will not serve its intended purpose. We are fast approaching a future where anything is possible if we can accept the need to even slightly increase the numbers of those who can see the symbols and patterns of the future. To increase the numbers of the builders and the people of vision. We must give birth to ourselves. It is a critical time when speed is of the essence and we have a large population full of the necessary genetics to choose from. Peace and stability of these patterns depends on genetics. We will need eugenics to ensure peace and justice. We cannot hide from this fact any longer, and there is no need to-our information has advanced to a point where we have decoded the genome, and we have the computing power to organize and analyze the relevant data. It is important to consider how important things like motivation for knowledge, motivation for truth, and industriousness are in addition to intelligence. Ideally, we would see these things working together. Peace comes with truth-as the blind men and the elephant story illustrates. There would be no more arguing if they realized they were all describing the same things, and if they were motivated by truth

rather than selfish desire or the temporary biological satisfactions that can come from maintaining a partial world view. The seeds that we let grow will mean everything to the future. We have many new challenges coming on the horizon. We need to be prepared for these challenges, or we will not last through them. Our civilization itself will fall. These technologies are part of the next step civilization has been preparing to take.

This book answers some so-called "ancient questions". However, against the panorama of the billions of years that the universe and life on this planet have been developing, these questions are quite recent. This structure we call simply "brain", is our Rosetta stone for the mysteries and language of existence. The brain is much more than sterile neuroanatomy or neurochemistry-although these alone are wonderfully fascinating, meaningful, and useful. Science finds theoretical unity with many isolated experiments, but how do we explain that science "thinks" it can find unity, so to speak? Why is it structured to find unity? Why does science work? Brains also work that way and develop theories, whether we are aware of it or not. This "feeling" of universal unity we get that we cannot explain (because it comes from too many places in our perception, largely nonverbal and unscientific) translates into religious ideas. The brain has been organizing itself since the beginning of time, in the cold, harsh laboratory of survival for BILLIONS of years. Our science has been only the becoming aware of this fact for a few thousand years-the rise of consciousness. Our next task is to develop the ability to become aware of it all, or at least the most important patterns in it all. It is no accident that only humans formed ideas of monotheism-we have begun to reach an understanding of the ultimate unity behind everything. The ultimate truth. Our ability to understand and manipulate symbols ourselves is a phase change, a movement into the realm of "creator" in our unity of understanding. In this phase, what seems like simple commerce, advertising, and information flow, is actually higher in purpose and meaning than we previously understood. It is more like the life blood of unity propelled by forces and meanings we currently do not understand. That is what the evidence presented here is about-the true ultimate unity of things that explains everything and gives meaning to consciousness.

What is the character of a brain which gives it such power? The brain is literally the child of the universe in the image of the universe--much as a fragment of a hologram contains an image of the whole. The "logos echo" of this theory is (metaphorically) the "shattered hologram" of meaningful forms in the universe itself. Everything is a mirror to the ultimate unity exactly like our own written language, arts, and civilizations are reflections of the unity of information in our consciousness. The relationship between distributed brain processes, mind, and the distributed space-time universe with its unified coherence is the key to our future. The themes in these ideas are found throughout our legends and in the sayings of our wisest scientists and spiritual leaders. There has never been a legend written to compare to the wonders forthcoming when mankind deciphers the universal key of our existence--the

human brain. This quest is the quintessential odyssey. Something totally new is coming-finally unconstrained by the fears and horrors, the darkness and doubt, from our past history. We are like archaeologists opening a vault sealed beneath the sands of time since before any living organism ever perceived time. Ancient kings and pharaohs were buried with their treasures for the "afterlife", for the future, whatever their approximate explanations in the context of the times might have been. They were also culturally reflecting a quality of information existing in the outside universe which is also sent into the future for us to see and find-as with "buried" natural law, or the treasures of meaning revealed by this theory. These ancient kings were buried under the sands of time with great treasures, while our human brains have been "buried" containing everything we ever knew or have ever seen for much longer (as the mathematical regularity of physics was "buried" until Newton, or heliocentrism was buried until Copernicus and Galileo). The Egyptian kings, who guided and built their civilization, were the figureheads of consciousness who held it together. Civilization is a direct result of the urge for unified knowledge precisely because such knowledge has survival value. It has survival value not only because of the practical applications of the knowledge, but because of the increased meaning which motivates us and allows greater creativity. Being on the right path IS life. To those on the path to knowledge, civilization looks like what we need to get to the future we envision in our hearts. A civilization full of symbols and writing naturally arises on the path to knowledge, and is a natural outgrowth of this type of mind and strategy as much as a birds nest fits its purposes and eggs. Imagery which reflects this knowledge seeking has motivational power. Looters, motivated by the need to survive, raided many of the burial vaults full of gold meant for the future. Enough of the vaults did survive, however, so that we can read the general patterns of what was most important to them. The ultimate burial vault is very close to home (inside of us), and contains the greatest riches mankind has ever discovered. There is no archaeology that can tell us more about our history, where we come from, and who we are. In this way, brain science is unlike any other science. After realizing these things, we need not view these ancient peoples (or any ancient peoples anywhere) as enigmatic or different any more. For example, I can see the same fundamental patterns today that I loved so much in them. I see that they are also fundamentally me too in very real ways. They saw the future of knowledge, even if they could not reach it themselves. They sent us their gifts wrapped in the sands of time. Every secret thing that motivates us has been uncovered, and our deepest desires here find a structure and a name. The ultimate archaeological odyssey is the brain and mind. The brain and mind are the originator and constructor of the materials and science of archaeology itself and therefore the ultimate in Rosetta stones, once truly understood. The Rosetta Stone allowed us to decipher the hieroglyphics of Egypt, but our science will allow us to decipher the hieroglyphics of the universe itself from the beginning of time in combination with the right minds.

To speak of the brain is to speak of the organ of all we know and experience. The brain is the author of our current life as well as the book of our past life via DNA and memory. The natural world of our experience is actually the attention, perception, and memory of our brains. Considering the results of modern brain science applied logically to our perceptions, when we see a scene in nature, our brains are what we really see. When we look at the blue sky, or a diamond of awesome beauty, we see the brain. When we look from the highest mountain, or under the oceans below, we see the brain. Science shows us that we are, and our experience is, our brains. All of the avenues of science are, therefore, also the study of the workings and structure of brains and minds. It is extremely important to the future of knowledge that we understand this one fact. Brains and minds are the unifying feature behind it all-the original source of all the theories and experiences that we have in this world. The foundation-shaking implications of this fact arise when we consider the paradoxes and questions that arise from studying the brain and mind together. The binding problem and the problem of qualia (perceived qualities of things) in our experience are two big problems for this world view. Like the irreconcilable problems physicists encounter with relativistic physics compared to quantum mechanics, a larger more unifying theory is warranted. We seem to have these various islands of knowledge, but they rise in different places, and say contradictory things. In a sense, they are all fundamentally wrong--although they are certainly extremely useful and descriptive of what we see. In the same vein, animal "theories" of the universe (animal brains) are both descriptive and useful, but they are also "wrong" from the human perspective. The problems encountered in the interpretation of these studies point toward large gaps in our world view. The ancient Greek philosopher Democritus said that matter consisted of tiny indivisible particles called "atoms". Even though he was basically right, we had to back up and "start over" in science to really get to a point in useful information where this idea left the realm of unwitting prophecy. or accurate superstition of what was to come, and became a powerful, workable reality. The idea resonated deep down with Democritus, but it was a simple foreshadowing compared to the power and beauty of the reality to come. There was no grounding to the idea beyond this feeling gleaned ostensibly from perception and experiences that Democritus had. Leonardo DaVinci drew pictures of fantastic machines as well as human anatomy, but it took lots of work and the coordinated information gathering abilities of many people to make a reality from the unwitting prophecy once again. When the knowledge level rises, the minds which combine things become creative and begin to get ideas which allow that civilization to grow and prosper. They can do this as long as they have a good environment in which to do these things. There are many examples of this unwitting prophecy all through history-and not just in science. We can see these sorts of patterns in religion, in civilizations, and even in the universe--One could say it seems to be a general pattern of life itself. The future seems to echo into the past, or seems to be connected to it deep down in our feelings, creativity, and motivations. Gregor Mendel painstakingly studied

the mixing and growing of different strains of bean plants which will find its ultimate meaning when we begin to gain control of our own genetics. The scientific method might be flawed in that it leaves out, in its stringent methodologies, certain extremely important pieces of information about our world and how it works-such as this "foreshadowing" effect and what it means or points to. How extensive is this foreshadowing? Why is it so uncannily like literary foreshadowing which is a powerful tool of great authors? Why do readers respond so strongly to foreshadowing? Why are they motivated by it? Why does it seem natural? Is this potentially a glimpse of a whole new way to see the operation of the world which we were not previously conscious of? From these things, we can see that the answers that are indicated by these various mind versus brain phenomena in opposition to each other touch on every aspect of our world, and every area of inquiry, art, and literature. Science came from brains as an idealized and externalized symbol of what real truthseekers always did within-formed theories about the world which they tested on the sounding board of experience, and consequently honed their theories. The greatest among us pursued pure truth for its own sake-knowing that ultimately everything we love about civilization depends on finding truth. Truth became a goal in itself among those who had the motivation and capacity to move toward it. Those with such a motivation realize that truth is the lifeblood of all good things and all good decisions. The work of many over the last few thousand years has enabled us to accumulate mountains of information-we should not be surprised if the biggest change of all time in our world view occurs now as we climb it. From the brain, all things arose in our lives and will be understood.

In light of the complex knowledge our civilization already has, it is hard to imagine how ignorant people still are about the workings of our own brains. Scientists really don't know how the brain works--even though there are many capable people working in brain science, and many promising, fruitful, complex, and beautiful theories. We have come a miraculously long way in the short time since our forebears frowned on dissecting cadavers to learn anatomy, or frowned on dissecting the contents of the subconscious and automatic programs in our psychologies, but memory, experience, and consciousness are all still a mystery to science. Certainly, fundamental changes are required in our perspectives--enough evidence from all areas of science, art, archaeology, culture, religion, and linguistics has accumulated to show this. People do not know why civilizations arise, and then fall. The overall pattern of these things, in combination with new information, indicates a new world view that explains these things. Some of it is new evidence that does not fit with any current area of science. There are flaws in our theories and gaps in our knowledge large enough to warrant a restructuring of our world view. We need a new perspective on a grand scale—a sea change. We need a fundamental re-ordering of the cosmos. Just as the introduction of heliocentrism advocated by Copernicus allowed us to understand much more-this change is absolutely necessary in order for us to continue. The telescope allowed the revolution of

heliocentrism, among others, but the study of the brain and consciousness are the lenses of the inward telescope that will bring a much larger revolution. That is what the evidence in this book is about. The trick is translating the experience of this new world into words--which themselves are a part of the problem, since we view and use words only through our old world ways. Our vocabularies and science were built on the old way. People must change how their own brains perceive the world, using overall patterns in this accumulated knowledge, in order to really understand. People, and species, have done this many times in the past to break out of various obsolete systems and ecological niches-which become dangerous prisons when the times and environments change. We call it adaptation-the punctuated equilibrium of the march of life across time is echoed in the revolutions of our science. In order to shift our world view into alignment with these new considerations, we will need to begin to view our world differently. All of the advances in science and all civilizations before us, all of our knowledge until now, has been building to a critical point in our history-that we might have the knowledge, hope, and courage to take the next step.

We will need unity in our diverse fields of knowledge to match the unity of brains found in our consciousness, as you will see later. The unity we experience in consciousness is part of a fundamental feature of existence. The universe is constructed with something much like consciousness. Our brains use logarithmic scales of perception (sound, for example), and we can write down ways we perceive and operate in the world mathematically in theories of physics. We know that these symbols have something to do with existence, because they work (for the most part) like the world does--which allows us to predict things. Likewise, our writing certainly has a lot to do with the way the world works—our human writing is not perfect, but since we have common experiences, we can relate to the symbols of poetry and narrative discourse. We automatically assume there is a writer because of the coherence and familiarity of the organization of the symbols. It is extremely easy to differentiate conscious writing from chance patterns (as long as you know how to read, and as long as you have learned the vocabulary). The problem is that we pay so much attention to the colorful writing and the timeless meaning in the symbols that they become the end in themselves-we see the beautiful scenery painted without realizing that the most important message is that writing exists at all! What does this fact say about the nature of the universe? If we take a moment and try to stop being so self-centered (much like we had to do with selfcentered geocentrism vs. heliocentrism in cosmology) we will see a much larger reality beyond even those fantastic symbol systems we create and use which seem to capture and reflect important things about ourselves and our world. We are so enamored of them, we realize the power in these symbols so much, that we get stuck on them. We must go beyond them to the reality. All symbols represent truth better when they are combined to produce greater meaning. Truth must even include the mechanisms by which symbols are formed themselves. Who hasn't become emotional when reading poetry of

awesome beauty-seeing a glimpse of the divine, and then photocopied the quote and pasted it up on a wall which divides up our environment! Great art is no different, it is a haunting glimpse of awesome beauty and timeless coherence--like a tiny breach in the wall between Heaven and Earth which obscures the creator. The creator is the originator and epitome of abstract thought and order. The more we learn and experience, the more beautiful and compelling these poetic things tend to become. That is obvious with reading as we gain vocabulary and experience, but much less obvious with the nonverbal. There is a reason that poetry, art, and the architecture of castles, skyscrapers, and cathedrals is so beautiful. For that matter, natural things like mountains or someone climbing a mountain, are beautiful for the same reasons. As Goethe said: "Beauty is a manifestation of secret natural laws, which otherwise would have been hidden from us forever". He did not know how true that was. When people are disconnected by the literal languages, symbols, and concepts they use, the truth cannot be perceived. Something more exists in the meaning of these things-something real, primary, and spiritual. When we look at the deep structure and origin of symbolic things like language, we can objectively and powerfully "read between the lines" of reality itself as a consequence. When we climb a mountain, we can see the whole city and also the rivers and fields which nourish it, all working at once! Human civilization has scaled the mountain of existence. A fundamental unity exists that has a coherence that we can see and describe.

Any theory of how brains work must tease apart exactly how we create and react to our model of this universe using our brain cells. How can an approximately 3.5 pound mass be a dynamic working model of the universe? Any theory must also explain how it is that we have awareness, or consciousness, to tie it all together. What is different, or potentially different, about human brains compared to animal brains that allows us to have theories, language, and science? Some species of dolphins have larger brain to body mass ratios than humans, but they never began to scratch any symbols in the sand and never built any shelters or gates to help them catch fish. They cannot fashion or use tools. They cannot describe the contents of their experiences. Something has bootstrapped itself up in our brains and that something is the primary unity behind the universe that we progressively describe in our theories-the ultimate "particle" searched for by physicists is actually a factor threaded through everything. This new search for truth in the brain is the key that will open doors, will open the way to a truly new future because of this. The brain and its products and experiences are painting a picture of the fundamental nature of existence. Unity is at its core—such a profound and huge thing that it was previously transparent—like the curvature of the earth was to our surface-dwelling forebears for so many dark years. The Earth is not flat, and it isn't the whole truth to say that neurons alone give rise to certain experiences. That is logically impossible. We reach a dead end for the old world view when we turn our perceptual apparatus finally and deeply inward. There is a lot more to learn, but much of it will be only a shift in existing

knowledge-seeing where the puzzle pieces fit together-much like the Necker cube illusion, or the two-faces/vase ambiguous figure that pops back and forth between the two ways of seeing, only now we will see that both ways always really existed. It is our limited minds that try to see only one view or another. Other larger problems also relate to this—such as science saying the universe is billions of years old while some religious writings say it is about 8000 years old. Neither view is wrong when you see these two different perspectives, they are just paying attention to different things. The important information about each aspect is only seen when the view changes. We must add this other world view which has historically been the subject of religion to our brain science, and we must do it accurately. This additional perspective can help us to break out of complex old ways of seeing our world. If a theologian of this new combined view looked at the brain, he might be inclined to see the glial cells as being just as important as the neurons, for example. The glial cells may be part of the answer for making sense of the otherwise irreconcilable data from experience versus the data of brain science.

There is great promise for the future of mankind when we untangle this Gordian knot of the brain. By understanding how the brain works, we can see truth much more clearly. Not just the truth of the brain, but the truth of all existence--since the brain is the nexus of the essence of our existence. The brain is where everything we know comes together. By understanding the brain, we will know what original and ultimate purpose our perceptions, thoughts, and language serve. We may also fully understand the limitations of our perceptions and understandings better. There are two basic aspects or viewpoints to the universe. The first is process or mechanism (grammar or vocabulary) and the second is unity or purpose (meaning). Basically, I will show that we have the patterns of mechanism and meaning in the universe, as well as in the brain. We know much more about mechanisms via our well developed western science. Unity is the power and sustenance literally threaded everywhere through the universe just as it has been the impetus for the progression of both the evolution of life and the evolution of abstract thought. Meaning is the ghost which binds together the universe. Even though human brains also include a somewhat tangled symphony of hungers, tendencies, and patterns rigged up by evolutionary contingencies to keep us alive, we can still use them to see truth by seeing the larger patterns within these patterns by using our consciousness and abstract thought. We transcend these lower, disconnected, survival imperatives by apprehending higher meaning and unity, higher goals. Once we understand a meaning or unity, once we understand the higher goal, there may be a number of ways to get there that we can follow. We often perceive higher meaning, motivations, and tropisms as beauty, honor, and character. The pattern of the theory of evolution itself opens our eyes so that we might be able to identify and transcend the pitfalls and tendencies left over from our animal past--from past stages of our development. The more grand and more unifying the theory, the farther forward we catapult ourselves in our development. These ideas, and the consciousness and overcoming that they enable, may be the

holiest gift of all--which arises directly from the evolutionary (and other) theories of science—despite the traditional antagonism between religion and science.

Religion was the foreshadowing of this unification of knowledge that we find in consciousness studies. Religions talk about "inner work" but then they tend to eschew actual information from science about what is in us-which is totally necessary in order to do the work to achieve the higher meanings and goals they maintain. Science itself may be the holiest path of all. Religion mirrors this path on a metaphoric/foreshadowing level, just as speculative or superstitious ideas about atoms or alchemy preceded modern conceptions of physics or chemistry! When does the torch of unity held aloft by religion become an idol blocking our progress? In the bible it says "my people are destroyed for lack of knowledge" and Jesus says "how can I tell you things of heaven when I tell you things of the Earth and you don't believe?" There are many other well-known examples from various religious writings that indicate that religions have everything to do with the progression of life toward unified knowledge. The "truth" is claimed or emphasized by all of them-a grand unifying idea of forces at work in the world, and in our lives, which we normally do not see. The movement of life towards a higher goal. The Hindu idea of reincarnation is all about a progression (reincarnation) of knowledge through knowledge seeking or wisdom to a higher level where the struggle of life and death no longer is necessary when you become one with Brahma or Brahman-the singular essence of all things. That sounds exactly like the idea of eternal life in Christianity or the idea of ascending to heaven as opposed to descending to hell. The Hindus seem to spell out the process more completely using the animal world of "internal theories" (lesser patterns and goals of behavior) and reincarnation as an example for their metaphors—sounding very much like the progression and dynamic of evolution in their reincarnation or caste ideas. The Buddhists have Nirvana-a similar transcendent concept. In religion, we generally have a leader who starts it by their enlightenment. Then that leader gathers followers because he has attained and seen that which secretly drives all life-which motivates life since the beginning. Our following such leaders and their doctrines arises because that is a microcosm of what we do in our hearts, and of what drove the development of life. We follow the unity and glimpses of truth we see, and in our hearts aspire to this eventual union with ultimate unity. That is part of our deepest motivations. All religion, and its enlightened leaders, are the harbingers of a new age to come.

We worship the motivation to knowledge, and have faith in its power (religions), but we must recognize the power of the actual path when it is opened before us and made conscious. We have somehow received the necessary equipment to transcend these innate patterns and traps left over from our animal past. We will emerge from caves of ignorance by seeing and understanding this. We have grown so used to these caves that we do not recognize them as caves. Things seen "through a glass darkly" will become lucid waking dreams of knowledge with our new understanding. We will

understand the history of human misunderstanding and conflict on all levels and pave the road to peace. Jordan Peterson's 1999 book Maps of Meaning is a superb book on the topic of the advance of knowledge as intrinsic to the nature of good vs. evil—one of the great books of all time. In that book, he outlines the nature of conflict, war, and evil. When we realize these base and innate forces at work, who and what we are will be much clearer. Like the antagonism between different theories of physics, (classical versus relativistic, or relativistic versus quantum physics) there is historical antagonism between science and religion that arises because of a big blind spot. It is only because we do not know the larger underlying truth that these antagonisms invoke fears and their attendant conflicts throughout history. When you do not know, and fear the unknown too much, you cling to what you do know. Religions are highly motivating, even in their manifold forms, because of the reflections of truth they do contain. Even so, if there is one thing history shows, new and greater truths are always waiting in the wings. Just like the Necker cube, or ambiguous faces/vase illusion, it is only when we make the bridge between the two aspects contained in the same configuration of lines and shapes that we know where the conflict came from: OUR MINDS and their old world view from past evolution before we learned to make and understand such symbols! The way our brains and perceptions are built, tend to make us stubbornly see only one or the other view. Peterson's (1999) book shows how the stasis of the unmoving knowledge can destroy, and how all conflict arises from this. We must always move to embrace the future if we want to keep living and growing in peace. Those who do not learn from the past may be doomed to repeat it, but those who do not also look to the future are just doomed. Conflicts between religions are of the same origins. We have outgrown the deadly squabbles between nicheoccupants in nature by the sheer volume and unity of our self-knowledge. We did this by moving past and beyond beguiling niches everywhere. People who value higher ability, who value truth and the heroic best among us, also value the beauty and peace that can only eternally come from these things ascending over all base things. Knowledge is peace. This theory will show that this transcendence is what life is really all about. The antagonism between species in the wild, or between ideological groups of people, operates under the same general pattern of incomplete truths. It is the nature of truth to eventually gravitate towards ultimate unity in our learning, just as it is the nature of life to evolve an ability for a great unity in consciousness. There is a survival value to that—probably the highest survival value of anything there is, because that is what drives evolution itself, as you will see. I will show evidence that truth and consciousness have driven the evolution of life from the beginning.

The entire history of the struggle of life has really been the struggle towards larger and more whole truth. Each species has a strategy based on some corner of the world it has learned about, or that it has been shaped by. The sonar of a bat paints a picture of a very specific corner of the world which is then integrated into its actions in order for the bat to feed and stay alive. Coherent knowledge is the key to the bats survival. To the extent that it has abstracted

correctly the patterns of existence within it's ecological niche, it survives. Truth and survival are directly related-it is built into the fabric of our everchanging universe itself—a natural law as certain as any other. Both our knowledge and our actions must be aligned with truth in order to survive. A body that does not follow the laws of physics cannot survive, for example. The ideas of physics tooled into the biology can serve an animal in many areasfood gathering, fighting and defense, or even mating. Human brains can discern theories which act as if tooled into our bodies. We can do many things with our ideas of aerodynamics, or disease causes for example. The human brain has leaped ahead of all other brains by taking up the search for truth directlyspeeding up and continuing this process of nature on a compressed time scale. Humans transcend the vast expanses of time normally required for biological change and selection in DNA molecules-which give rise to the structural change in the organism that we see in the fossil record spread out over millions of years. The brain truly is fundamentally a time machine--pulling together things through time, abstracting unities and commonalities, and operating according to projected futures which set us on the fast track to knowledge and life. All mathematics is like analogy, metaphor, or allegory-we distill out of what is written in the book of reality the very thoughts and principles which created it. We re-create the thoughts of the "author" of the universe anew. Now we begin a new era—by studying the very thing that is built to discern, built to find and unify knowledge across time. We study the brain-the grail and book of the life force itself-a book of the universe written over billions of years. A grand theory of everything would naturally encompass many different areas of inquiry, and give us valuable knowledge in many different areas. All knowledge arises in the brain.

I will present evidence, and argue later, that this quest for and love of truth is the internal realization of the overall life force which drives everything. In the ultimate "putting the cart before the horse" so to speak, I will show that it is this unity taking shape now in our consciousness which has driven all knowledge-seeking and civilizations of the past. It has pulled itself up out of the void via evolution to stand here on the world today. It is difficult to imagine the mighty future of mankind this event portends because it will be quite different in the future. I will also argue that the "theory of everything" sought by physicists cannot be completed without reference to the human brain and its mind, because the way minds currently perceive and assume things directly effects what we can see. To look beyond the things our biological brains are telling us, to read between the lines of even our already abstract and distilled theories, is the highest achievement of mankind. Many of the stories tooled into our biology are "just so" stories designed for one purpose-to keep us existing and reproducing until we acquire the wisdom to take command of the cosmos. Higher truth can be woven from the patchwork islands of knowledge that have been knitted into us over billions of years. That is the purpose of, and origin of, consciousness. With it, we bind the events flowing through our brains into pure distilled truth—the elixir of life. The study of the configurations and workings

of a brain offers both the anatomy of a single person and the anatomy of the universe and time itself. In order to transcend the brain and its workings in our theories we will need to know what is built into the brain and why. As you will see, there is no greater quest than for pure knowledge, and no greater place to seek it than in the brain and mind.

Science tends to suffer from theoretical agoraphobia--fear of wide open spaces, or the wider world beyond the parceled-out theoretical housing scientists live in. All houses, whether theoretical or actual, exist in and are built from this wider and greater "forest-world" of truth. Houses are subsets of our world fashioned for our purposes. You cannot truly understand any house without knowing symbol, tools, people, history, environment, and weather. Science is a powerful truth-finding tool, but we must not forget that it studies the relatively isolated and repeatable in nature, the foundational regularities. If life is a book, this is like studying the grammar, and learning about individual vocabulary words, in order that we might eventually hear God speak, or see the true and pure meaning of things and events when these separate things move and combine in different ways in working, complex reality. Whatever we see that is rare or unique is a source of meaning that combines these repeated things. Studying grammar or vocabulary cannot tell you why the book is shaped the way it is, the meaning of the sentences, paragraphs or even the meaning of the whole book. Basic foundational regularities cannot tell you why the universe is set up the way it is, rather than some other way. Life is all about complex meanings that are always changing, always in motion. Meaningful coincidence, rare events, rare jewels, and rare books are all valued highly. Singular events are valued highest of all. If you combine rarity with order or beauty, you have the things which intelligent, truth-seeking humans value most-such as the Hope diamond. Unique events are what life is all about. Unique events give rise to new species for example. A beneficial random mutation in the genes of an organism is exceedingly rare. According to anthropic cosmology (see later chapters) the universe itself is a unique event-within which a series of unique events occurred perfectly to allow life to form. We can describe the collective statistical patterns of subatomic particles, or the statistical patterning of collections of humans, but none of these can predict the singular case—whether we consider a single particle or a human. We must add life to science. Our reading comprehension must expand so that our information can properly interact beyond the corridors of our conceptual housing. Here we will find the glue that brings together all our learning and all the strivings in the history of life. We will see the missing factor which guides the events which are unique, rare, and multidetermined come down to meet the foundation built by science. This factor will mesh perfectly where science leaves off in many areas, or where it has nothing to say entirely.

The scientifically known universe operates according to various combinations of eternal patterns. There are regularities and uniformities according to which the world operates in all places—just like our organs and physiology are relatively stable compared to our ever-changing experience of

patterns in our brains and minds. Space, energy, and matter are all well known forms of these stable patterns, which interact according to still greater patterns or principles (i.e. E=mc 2, or chaotic dynamic theories in complex systems, etc). All of these eternal principles of the universe are like the thoughts and plans of God-the ideas that worked to bring about a certain future. Past decisions that worked became embedded in a universe that was to give rise to consciousness. A way of doing things that works. The personality, a set of stable characteristics for dealing with the problems of life, of the universe. The memory of the universe, or the continuity that unifies and binds it together across time and space. Again, brains are a reflection of the universe, and share patterning with it. These timeless patterns of the universe are analogous, in their general form, to the patterns or principles of thoughtful men distilled from their countless experiences, pains, and joys of life. In other words, what we would call wisdom in the realm of humankind. The universe we know and see is like the wisdom of God. This relationship of universe and brain is an important echo of forms which will be developed in later chapters. It is important to realize this relationship fully in all of its implications. This "logos echo" is one of the most important tools for understanding the world and the universe we live in. It is not mere coincidence that the pattern of evolution of life echoes the chance, fine-tuned construction of a universe which miraculously allows life to exist (anthropic cosmology). The evolution of life is a series of "impossible chance" events which have given rise to intelligent humanity via selection. They are facets of the same process—echoes of forms embedded in forms which underlie existence itself. There are meaningful patterns which repeat and tell us about the basic nature of reality and why life exists at all. These things are written over and over in the world as if planted by an intelligence—or our intelligence is very much like the constructor of the world because of some common invisible unknown principle that links them. Both of these viewpoints are true according to this theory. It is a trick of our language, methodologies, and specializations that we leave these overriding echoed messages out of our knowledge-much like we overlook the blind spot in our retina where everything we see comes together in the optic nerve and courses into the brain. Brain science has shown us the nature of that blind spot, and now we must continue our journey and fill in the much larger central blind spots which are so intimately related to this. We must read the story written across existence. We all tend to know that anything the teacher repeats pointedly in a classroom is going to be on the exam. The echo of forms (the Logos echo) in language, brains, and the development of life will be extremely important in the future of humanity. This is a direct result of the ultimate unity underlying all events and forms in the universe-the most eternal pattern.

The particulars of life events are transitory, but it is possible to see the principles behind these fleeting events as well as the meaning in them by careful observation, investigation, and knowledge of the eclectic variables at work. This internal methodology, genetically tooled into the highest beings, can also go where science cannot—into the realm of patterns in multiple variables

over time that paint pictures between the lines of thought in the various divisions of science. Science cannot operate here. This is also the method by which we come to know the wisdom of the universe itself (eventually--as we gain knowledge with science, etc.). We peer behind the veil of fleeting events for the timeless themes, for unity, for coherence, and for truth. We seek the threads that connect the past with the future beyond the blind, disconnected present, beyond even our brief lives. We strive to align our thoughts with the thoughts of what we dimly perceive as "God" in this way. We read the works of God—the originator of timeless truth and meaning. This reveals another way the universe is connected apart from the isolated linear regularities which science sees so well. The more you read and compare different writings, the more you understand and see the meaning beyond the words, the stories, the particulars, and the narrow fears of life. The Rosetta stone gave us a means of deciphering the Hieroglyphic picture-writing of Egypt, and that deciphering also teaches us about the nature of deciphering itself. In the stone, a message was repeated three times. When we deciphered one, then another, and realized they were repeated, the other became apparent. The echo of symbols allowed the leap of understanding and unlocked the holy picture writings, or "hieroglyphics", of an ancient civilization. So it is with the hieroglyphics of life and the universe itself. What seemed to be meaningless pictures and forms in our world have a definite meaning when we use the Rosetta-Stone-like method to decipher it via the logos echo structure of the universe. This is an important method of gaining knowledge not just for deciphering linguistics-since the actual construction of the universe and life within it is like language in many ways. Actually, the language-like structure of the universe came first, and then we capitalized on this with our own rarefied symbol-language. Language came from this aspect of the universe which we knew so well we could adapt this process to our own purposes too. We have faith in deciphering a language, or the workings of the universe, because at some level we know there is order and eventually we will find meaning. We could see that various pictures in Hieroglyphics repeated, and therefore we saw regularity that led us to believe it was a language rather than, say, random art for example. The meaning we gained as a result of deciphering led to a higher order than the repetition we saw previously. Faith in the unity, meaning, or higher order behind manifold experiences drives science. This faith in a higher order, and a drive to discern it, is a hallmark of those who love truth and see its promise ultimately in the future—glimpsed in the present like "shadows on a cave wall" (as Plato said), or "through a glass darkly" as it says in the Bible.

There is a vertical and hierarchical organization of meaningful combinations of forms which reveals the growth and trajectory of the unfolding of the universe and life itself. The center of a solar system, a galaxy, a hurricane, or even an atom are saying something to us beyond the mechanics of gravity, weather, or the subatomic forces at work in shaping them. We study those forces with science. A Buddhist pagoda with the ascending, repeating architecture of its roof catches this other hierarchical pattern hauntingly, and

that is why it has deep motivational significance for those practitioners. In the future we will totally understand all these things with their merely compelling and haunting motivational significance. In this theory, that is WHY these things have a motivational significance. They reflect the unseen path of life itself. The difference between science and religion is simply a matter of methodology-both seek the invisible unity and coherence within abstract ideas. The evolution of life is like science itself in many ways. Religion, science, and life seek the timeless wisdom in the end, ultimate truth. Like the ambiguous figures of psychology that our brains tend to divide into 2 aspects (because our brains have been fashioned that way for survival in the past). Science and religion are both "correct" in a manner of speaking. Each develops and attends to a real aspect of our existence. Science focuses on individual variables, and builds a tower toward the future, toward higher accurate understanding of the patterns all around us-honing it on experience after experience in controlled experiments. We set ideas and events against each other to see what commonality comes forth from them. Religion tends to fall short on attending to mechanical accuracies and relatively narrow formulas in the present (the realm of science) in favor of the higher meanings all life has been apparently moving toward in the future. For example, religions tend to say that we are able to see the wonder in these futuristic ideas right now if we turn away from immediate living demands and diversions and reflect on higher things... Science tends to be blind to the meaningful hierarchical organization existing in sets of different things. This meaningful hierarchical organization is a source of knowledge as well-one that can lead to knowledge of our future, and ultimate understanding of the meaning of the universe, the meaning behind the "words" of life--a stairway to "heaven". Religion glimpses these things, this higher meaning, which combines vast sets of experiences and information. But then it has a lot of trouble speaking about these topics in concrete, parceled-out terms because they encompass so much, and are a basic quality giving rise to the symbols themselves. How do you symbolize something that is the root media of symbol itself, an arrow to the future, a trajectory of all events in the human realm, and mostly nonverbal knowledge distilled from combinations of symbols? Additionally, many people are unable to see these things at all, but have seen the "shadows" upon which they build a faith. They see what drives them deeply, and then accept all sorts of inaccuracies in order to keep this unseen and tenuous experience alive. They simply know that the basic ideas threaded through are important. A prospector is motivated by precious things to dig through a lot of rock. We must refine this ore. Religion is a precursor to our own future glory as much as alchemy preceded modern chemistry. Science is an outgrowth of the same motivation that drives the mystic—a drive to know truth from glimpsing a glorious future.

The first step in this quest, or this process of lifting yourself beyond the walls of your conceptual niches, is to know your own life, thoughts, and mind. When we react to something in the present, is it because of some genetic program that is triggered out of our species' dark animal past? Is it because a

program is triggered out of our more immediate individual cultural programming (which was also influenced by our darker past history as a race)? Is it a reaction from the "baggage" and fears of our personal past? Do we just react unknowingly? If we cannot tell the origins of our thoughts and behaviors, then we cannot progress--as individuals, as cultures, as species. Careful attention to the continuity behind these things, the unity or what these things are "saying" is extremely important. Knowledge about who you are and what your tendencies are, is absolutely necessary in order to follow the path of truth. Most people assume they know these things when they do not. We need to get at the psychological and biological roots of our behaviors. Science is a great help in this regard precisely because it is an externalization of this internal process of persistent perception, doubt, information gathering, and hypothesis formation. In the recesses of the origins of deliberate thought and automatic reaction hides the fear, lust, insecurity, and irrationality. These things have the potential to snowball into the total destruction of the future of knowledge you might otherwise reach. In the light of day (of consciousness), the dark factors which can divert you on the path cannot survive, their power is gone. You climb a mountaintop, and the wider perspective allows you to see the patterns in these approaching divisions of darkness which would otherwise destroy you unknowingly on your path. By doing this, we can stop these seeds from growing. Deceptions are laid bare by whole truths. There is an old Chinese proverb: "The warrior must face himself before he can face the enemy".

The fearless boldness and persistence of a great warrior is an intellectual requirement on the path to truth. Not the "truths" promulgated and accepted as cultural programs or patterns, which can easily be believed with social support (like various myths for children), but often have no bearing on reality at all, but real truth. The life of truth itself, the victory of truth over darkness and ignorance, depends on such boldness. Irrational desires, beliefs, and urges keep you from following the path to truth. Irrational fears turn into phobias by keeping you fearful through avoidance of the feared object. Authentic rationality never gets a chance to overcome when we hide from our own fears in both thought and action. We must pay attention to ourselves to gain knowledge-no matter how difficult that may seem. We must always strive against the mindless programs in ourselves in the ultimate quest for knowledge, otherwise we fall prey to those animal programs and direct our attention outward, unknowingly seeing and causing conflict instead of directing attention inward to increase our consciousness. To be filled with the unity of truth is to be emptied of these lesser competing programs from our dark past-exactly like Icarus rising toward the sun, overcoming the god of this world, or conquering the minotaur in a maze-prison. A sunrise banishes the shadows and is the light by which we see our world. The sun is the light by which we read the book of life. The only worthy challenger in any honest contest is yourself. Is there really any difference between self and enemy? Once you face yourself fully, you always see yourself in the enemy. You see yourself in all life, since you have a common ancestor and share many things. Once you do this, the

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modules operating in your brain become sources of information instead of murky shadows controlling your actions automatically by fear and other emotions. You connect and make peace with these things. It is the unknown self which makes an enemy to be feared out of others like us that can escalate into an unhappy life or outright horror. It is the shadow we cast that we have become detached from. Higher knowledge and unity destroys the machinations of these deceptions, and prepares us to unify all our other knowledge to eliminate those deceptions and destructors also existing in the outside world.

DNA contains the distillation of vast numbers of experiences and adaptations. The principles from our past lives are written in the DNA, edited by death. The timeless wisdom of a species survival. Each of our lives is like the Flowers for Algernon (Keyes, 1976) story, where a drug administered over time makes a retarded man into a genius. The retarded man is just like the new man at each birth. The drug is symbolic of the interface of development between man and his environment. In the story, the man becomes the smartest man on the planet. He tries in his limited time to find a cure for his disease of darkness that is less fleeting with the wax and wane of lifetimes (the drug wears off in the story-analogous to the starting over of the next generation after death). He does not want to go back to retarded again, back to the chrysalis, back to the thread of DNA. More recently, the Groundhog Day (Columbia pictures, 1993) movie story echoes this general theme of life. Each days events build to a climax, only to be wiped clean in the night to start over as if nothing had transpired at all except in the mind of the one subject in the story. He constitutes the unity behind all the repeating unaware people and events in the time loop. The story reminds me of human life and civilizations. It is not a coincidence that individual human struggle and the struggle of civilizations share so much in common in the quest for knowledge and in survival, memory, culture, and conflict. Entire civilizations spring out of the mind of man, from brains. Civilizations reflect the spirit, advancement, and minds of the leaders and ideals of the people that build them. Civilizations act like a larger brain, and they too will never persist or grow, or be creative enough to survive without movement toward the higher purposes and knowledge of our destiny. Civilizations can be diverted from the path of transcendence and truth by lower desires and corruption making their way into the halls of power. Persons still seeking truth and rebelling against this kind of deceptive dark power are removed or killed because they are now threats, once the dark powers take hold. The real destruction then sets in when those whose ideals and whose aspirations motivate and inspire cultures begin to be killed along with those who follow them. In this process, the soul of civilization itself is extinguished. Remember that the people of truth build civilizations, then the power is laid bare to entice the "virus" of the unscrupulous who seek merely to survive and control using this organization. It is just like the body in its vulnerability to a virus-which replaces the bodies truth (DNA), and directing instructions for life in the cell, with a program to suicidally produce more of the virus to further the pattern of the virus. Without a social cleansing and eugenics program based on following

or obtaining these higher truths of these patterns, we are lost. The powerful products and resources of the path to truth can be commandeered by the unscrupulous. It is a real danger of this abstract realm, and our survival utterly depends on our best minds. They are our vision and immune system towards truth. Each of our minds individually faces a similar dilemma that coincides with the dilemma of civilizations. We must overcome immediate and more base urges to pleasures or power to move toward and work toward something greater. A civilization must do this as well in order to continue to grow. More will be said about these kinds of "coincidences" which are related by the logosecho later on. Biology is the study of the principles (DNA) resulting from unimaginable numbers of environments and situations which led to either the enhancement and building of an individuals success or the premature demise or lowered probability of survival of the individual. Truth within a niche is always the primary gauge of survival for animals. Greater truths, or the greatest truth which transcends all environmental or ideological niches, have become the gauge of survival for humanity. Our every day arduous labor of survival in this abstract environment is to discern and nurture truth.

Through repetition of the main points, while providing gradually introduced evidence for a higher and higher view, I am building knowledge of something new in the reader. Then when the time comes I can introduce the four main lines of evidence to support a phase-change in their thinking in the later chapters. This repetition of main themes and gradual introduction of higher ability and knowledge is the general pattern we see in the process of evolution itself which created us. The first function of natural selection is to set the stage for a kind of learning. Organisms that do not reflect and operate according to truths are generally less likely to survive. Some things are good to eat, some are poison. Some things an animal can do and some it can't. Some animals breathe underwater, some don't. The problem is that most organisms have adapted to particular narrow niches in the environment. As long as they do not venture outside the alleyway of their partial truth world (the ecological niche they are adapted for), they can survive well. As long as things don't change, they can survive well. The wide world is not open to them. They must live somewhere definable. Birds live in air and trees. Fish school in water. Prairie dogs burrow in the plains. Their worlds are a slice of reality-strategies based on availability of environmental niches. Humans are potentially quite different. We can see around our limitations. We have expanded into the world to know greater truths. We can see the potential patterns trying to form in our minds based on desires or pain and we can transcend them for greater purposes. We can live on land, in the air, and underwater. We can even live floating in empty space. We naturally have "dominion" over the animals of the earth because they are subsets of us. Their worlds are subsets of ours. Our ability to learn within a lifetime has speeded up our evolution. It is our greatest adaptation. Our brains have leap-frogged over our bodies' slow ability to adapt via mutations in our DNA. With our brains, we do the work of God when we learn-we advance ourselves. Our brains improve on the very process that gave rise to them. We

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have the ability to completely disconnect our survival-based imperatives to stay in our narrow environmental niches. We forsake such livelihood for the higher purpose of wider life and vision, actively teaching the things learned to each new generation. We have taken on the "DNA of the universe" directly--the principles of truth in natural laws and processes we have learned. We traveled here via the DNA, but this other process of learning which expands on that DNA knowledge transcends that earthly foundation, and when we learn enough we become free of it. Before the advent of this new way of adapting or gaining knowledge, we could not plan for the far, far future or create new things. Only humans have this kind of transcending knowledge, and the consciousness that arises with it. Human civilization works because of the combination of transcendent leaders of thought or culture combined with those who direct their energy into expanding constructive ecological niches within the environment of the civilization. All of these builders of civilization have a common motivation in their hearts-reverence for the knowledge which sustains them and the truths they build with that knowledge. Our metaphors to describe our aspirations reflect this. It is a team that builds a "castle in the sky" of abstract thought together. In this castle, a new destiny is born, the ultimate phase-change at the pinnacle of all the patterns of nature. The culmination of the teachings of the universe on this Earth and a new path toward the future.

Our greatest minds expand the boundaries and niche of all mankind, all cultures. The more situations, scenarios, and variables a mind can encompass, the greater the mind. Inherent in this is the concurrent lack of motivation by fears, pleasure seeking, peer pressure, ideological manipulation and lying, political power, etc. These are divisive qualities, and share nothing of the team spirit which builds a civilization. These are the forces that keep us blind and in niches of survival in the world, seen as ends in themselves. They keep us in our caves by conditioning and destroying despite our miraculous advancement over our animal forbears. They are a legacy of our past. They are stages of development at best; fixated, beguiling ruination of many at worst. The true dark side of human nature comes into being by only focusing and measuring life by those divisive qualities. We must have desire for truth-and especially the emotional makeup to drive us there. Cockroaches are very successful at surviving, but they have not advanced or changed for millions of years. They are still cockroaches, and they live in the dark eating refuse and being eaten and stepped on. Still, they survive, and there is an important message in them about mere survival. Once again, There are inherent vulnerabilities in the tenuous ordered constructions we build. Bugs enter our homes and potentially spread disease, rats enter our sewers in the city and spread disease, viruses and bacteria enter our beautifully organized team of cells in our bodies and destroy. Viruses, totally "unaware" of the delicate spatial organization and beauty of a human body, enter the cells and seek to gain control of its machinery for its own nontruth seeking survival patterns. It forces the cell to do what it needs by usurping the controlling center of the cell with foreign DNA. Civilizations have similar vulnerabilities to deceit, degeneration, and criminal activities. Despite this, we

owe the marvelous use of our minds to the entire brotherhood of all life, stuck in it's niches. They forced us to this stage, and they are placeholders and laborers in the great cycle and patterns of nature. They can teach us a lot—not the least of which is what NOT to do. They can teach us about ourselves. Our greatest minds understand this.

Why do humans seek knowledge at all? This is a MUCH larger question than it seems. The short answer is that we seek it for the future, it enables us to survive. We find knowledge and then we overcome obstacles with it. But in order for that to work, we need to have the characteristic or knowledge before the event occurs that would otherwise destroy. Life has been extremely lucky in this area. The demise of the dinosaurs was lucky for humans, or we would not be here. We build monuments honoring war dead, but we must expand our memories to honor the struggle of all life. Their pain is the bellwether of our birth. They all suffered and worked that we might be free. That monument to all life already exists in our science, in our truth seeking, in our fearless wider vision. In the delicate patterns of a culture moving towards truth, we find the culmination and resolution to millions of years of suffering. How can we even consider stopping on the trail to truth? For billions of years the dark, generative pain of the universe brings a man forth-a mind wrought from this must not stop. It is at the pinnacle of this process. Without these organisms toiling and dying in nature, our ecosystem would never have survived and taught us so much. We would never have survived. We have been built and sustained in stages-stages of Earthly development over millions of years. We must not become complacent. We cannot forget these things and regress-allowing our minds to fall away from truth-seeking patterns. Truth-seeking is all about the will to live, all about the future and the potential power that truth imparts to a civilization working as a team.

We have reached a level in evolution and knowledge where we are able to see the patterns writ large over our universe and our civilizations. Our newspapers, televisions, and computers display dots which our minds and perceptions see as whole pictures. We see it in the photo mosaics built by computer programs (Tyler, etc.). Photo mosaics are smaller pictures arranged in such a way that they form a larger picture (Silvers, 1997). It is no accident that these things all "echo" this feature—whether with tiny dots forming pictures on paper (half-tones, etc), or the glow of phosphor dots on a TV or computer screen excited by electron beams. When humans build things, we do so also using the principles of the universe. The universe is built like that-with patterns that combine to make larger patterns. There is real information there in the overall structure of these things, in the echo of the forms they all take. There is information beyond these stories of specific and mundane occurrences in our provincial world. We need to combine the things that are divided out with our purposes, survival needs, and fears in the TV shows and news stories they portray for us. There is information existing like this embedded in the structure of cells and their characteristics that form into our bodies, and in the fact that a shattered hologram breaks into many smaller complete images of the original

picture with less detail. This higher pattern of information goes beyond the unrelated, scientific (unrelated in a scientifically causal way) basis for these technologies of print, TV, holograms, or photo mosaics, and even natural cells in a body. Our most advanced minds connect the "dots" of knowledgeperfected and brought into relief by science--into pictures that, as we take a wider view, become dots in a larger configuration of dots that also becomes a picture—just like the photo mosaics. Like climbing a mountain, we take a larger and larger view. We see a greater unity to the forests, rivers, and towns we once knew as we look down. We see a meaning in these patterns. Soon we see the face of God in the mosaic, the hand of God moving in the world. "God" in the sense of the driving force behind creation, the unified principle of life. The directing force of the world, and the universe. A constant striving and intrinsic motivation for knowledge from all diverse areas is the best measure of intellectual endowment- this is ability for transcendence (in religious terminology). This transcendence is a higher form of knowledge partially built by science, as a puzzle is built by searching and trial and error in the pieces. The understanding, meaning, and beauty of each dot, or niche, or aspect of the world is enhanced by this kind of overall knowledge, this rich context of meaning. Such a transcendent mind can understand the niches, the beauty, the value of an animal much more than the animal itself ever could. The perception of beauty itself requires this kind of vision and requires a heart which aspires to truth. The larger patterns, the larger meanings to things, are what is glimpsed in timeless beauty. The knowledge that allows such perceptions has real power behind it.

The DNA contains codes for our principles of life--the patterns which allow us to continue into the future. These principles range from bodily processes to the subtleties of behaviors and motivations apart from the specifics of our own individual learning and experiences (a single life's experiences). DNA is like the data of the billion-year, automatic, self-perpetuating science of survival that is life. DNA is the organizing principle and unity of cells and organisms. A form of time-tested learning made permanent. A biological repository of information on what it takes to get to the future through time-the secret of life is organized from our past, written in, and is organizing now, in the spiral stair of these truths. Humans potentially stand atop this spiral stair. Our large brains, and our ability to learn is a speeded-up version of the evolutionary laying down of principles, or learning, in the DNA. We are racing toward reflecting the larger patterns of the universe itself more quickly and completely. Civilization is built to aid and support this process in our cooperation and combined knowledge. We have decoded the entire human genome, and the course of our future demands that we use it. We will have to, sooner or later, in order to survive and keep moving forward. We will need to upgrade humanity. This cannot be stressed enough. The ability to see ourselves, to transcend, is also genetic and so is the motivation to do so, the motivation toward pure truth. Truth is not polite patterns of social interaction. Truth demands the vigilance and boldness of warriors at all times. We live primarily

in social environments now. We are now required to take over the task of choosing who goes forward, of choosing which genes to increase in the population and which to decrease. We must become death in that we must serve that part of the creative purpose of God.

The motivation toward truth is the ultimate prototypical unselfish act against which every other concept of unselfishness is a pale echo, or even completely make-believe. To see truth and the patterns and trajectory of life is to overcome your own pet fears and desires, to fire-walk the coals of your subconscious for a greater purpose, to forego the tasks and demands on your mind of the present epoch or era in order that you might understand something greater than you or your own times. Truth is never in the facades of things. It is not in the surface patterns we are taught. It is built by experiences over time in highly inquisitive and thoughtful minds. There are many dangers on this path. Our emotions can be easily diverted without a developed truth ability. The childlike nature of animals, or those of lesser ability, appeals strongest to those who have high-investment styles of parenting and therefore have all the emotional apparatus to strongly support this evolutionary strategy of investing highly in fewer young. Animals without the attendant emotions and propensities from high-investment parenting are not charitable. They ignore or actually eat the weak or small-even their own. Since we tend to live with our own kind isolated from other animals, these charitable emotional urges serve us well within our own pattern as part of our own strategy. We get into all sorts of destructive problems when we extend the proximal patterns and urges made for our own patterns to those outside our overall genetic strategies on different paths. The real problem with being able to upgrade humanity for peace and truth exists in one single area-peoples knowledge of how our brains and how the universe works is still woefully incomplete. DNA manipulations could be the end of us if we use the same old twisted cultural benchmarks of what we consider to be ideals—of morality, intelligence, mental health, etc.--most of which have a HUGE underlying animal component from our past, or the smallish, narrow, task-oriented exigencies of the current politics and the resulting culture woven through them. On top of this, political forces in academia, the press, and hence in our elected officials, force us to ignore this central of all issues in the genetics underlying race, IQ, temperament, and justice. This is suicide. We need this information now more than ever. We need whole information in all areas. We cannot pretend that genetics do not count anymore.

The more permanent DNA principles certainly mix with and influence our ability to learn and act within our lives. These are a framework of principles for living--the "behind the scenes" themes of our lives and histories which we are to work and build on. They are a foundation of information. Some have a harder time of it than others in building because DNA is different for everyone. Not everyone can follow the same path. Our built in tendencies, strategies, and principles are different to varying degrees. We all walk different paths, and some just do not have the genetic equipment either intellectually or

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motivationally. This is a harsh fact that we have no choice but to face headon. These built-in principles mix with and are distilled from (by mutation and selection) the other external principles operating behind the scenes in the universe we live in. We use that DNA subset of universals in order to live-you might say these universals are life to us. They are what gives us time here. Truth is life. The biological and the real external principles mix together, and where there is not truth there is death. That is the pain that shapes us. It is the unseen or unknown factor that kills organisms, and those among us with wider and more transcendent vision are few and far between. Heroic humans realize that survival isn't everything, the path of life toward truth is everything. All survival must serve this greater path. DNA overcomes the pitfalls of selection by developing directly an ability to think and learn to anticipate and predict adversity by understanding the processes themselves at work in the world. This flexibility allows us to move ahead rapidly to more ultimate knowledge. This staggeringly complex mixing of various and diverse principles to create our model of life in DNA also follows some basic dynamic forms itself--a choreographed dance of life with the principles of the universe shaping us. This is what builds the world we know. This is also how our brains must work within a single life—the DNA in combination with the universe shapes our world in a choreographed way. We are living theories of the universe seeking to find truth, and LIFE. In writing this book, I kept going back over it-changing it, jumping around in hopscotch fashion. It evolved by increments. I realized the beginning of the writing was most important to hook the reader and set the stage for an interesting story. The universe is organized like that too in general form-the beginning right after the big bang was most important for solidifying and fine-tuning natural law, to make us possible. Authors always pay close attention to the beginning of a book because that is where the ideas to be developed later take root-it has to be interesting. An interest is some feeling you have about the future which catches your attention. It is the perception that the author has some handle on truth which you can relate to—it grabs you deep down. That is why I am writing this lengthy introduction instead of just immediately presenting the four more scientific later chapters.

Chaos theories--unified ideas which are being applied to natural systems which were previously thought to be disordered, random, unrelated, etc.,--also show how simple equations describe the working of these complex natural systems (such as the weather or the mixing of fluids). Just as in our natural world we can understand the history and future of a world or even an entire universe from known principles (i.e. evolution, fossils, orbits of planets, cosmic background radiation, geology, carbon dating, linguistics), we can also know mankind's past and future sociology and biology by knowledge of the principles and clues within the life of a single man. We can find the DNA to make a whole body within a single cell. Like a hologram, a man contains a reflection of the whole image he is a part of. Like a successful experiment, a single instance can help to reflect the universal principle. A man can reflect the

entire universal principle of life if that man develops his abstract, transcendent mind.

This idea of how the universe and our bodies and brains work is larger and more complex than it would seem at a glance-even a concerted one. We are not used to scrutinizing ourselves, we are not used to looking at these things. Above the doorway to important Greek cultural institutions in ancient times was the saying "know thyself". There are millions of years of experience tooled into your genes. There are billions of years of the choreography of natural processes that make up the universe. These years softly speak like the pastels of an impressionist painting to a quiet mind, a free mind unafraid and open to experience. Our large transcendent cortex has combined and comprehended the message of the eons contained in these things-these otherwise inert patterns of mere daily survival. We have come to know the patterns across the dark expanse of time that shaped these things in our minds and bodies. Just as the universe was dark until life, our minds are dark until the sweet angel of higher thought and the greatest consciousness enlightens the mechanics of survival. We echo and recapitulate the development of life in the universe in this way. In religious ritual, we engage in certain practices that echo earlier events. A life naturally does this when it learns and mobilizes and unifies knowledge which is otherwise static and lifeless. Each life is a cosmic ritual echo of the processes of the universe. This allows the patterns of the universe to be available within a single lifetime. To be truly free, you must listen inwardly with consciousness whenever you listen to experience in your current life. What do your interactions with others, and your own fears, tell you about yourself? You must clear your mind of politics, intimidation, greed, parental urges, lust, and other animal games of mankind in order to clear the way for truth. Once again, an ant follows a chemical path laid down in the search for food, but has no knowledge of the "higher meaning" or higher organization of these things. With our consciousness we can see an amazingly organized overall pattern across time within ourselves--the patterns of our own personality, or in the patterns of an ant colony. We even have recently found patterns of multiple ant colonies cooperating across thousands of miles in Europe-(according to similar genetics). This study was printed in the Proceedings of the National Academy of Sciences in the April 16, 2002 issue according to ABCnews.com where I originally found the article-a fortuitous coincidence in itself. Certainly the ants do not recognize this 3,600 mile-long pattern across such a vast time and space. It simply arises and works for their survival. It took us a long time to discover that ants can cooperate, and even longer to see that they cooperate based on their fine-tuned genetics on such a grand scale. The cooperation is within one species of ant only-other ant species that even may be quite similar are somehow detected and are fought. We need to consider larger patterns that have led to our survival and the building of civilizations. Patterns which we were heretofore unaware of on a much more grand scale. Our unseen larger patterns span the skies of our future. There are large patterns which may be unlike the simple and straightforward cooperation between separate enclaves of

genetically similar ants in this study. Those forces certainly are at work in humans too, but that is a simple example with pretty immediate survival effects. Our patterns are on a different level. At some point, our minds and patterns become parallel to the patterns of the known universe itself.

We are on the brink of being able to manipulate these patterns or abilities in our genetic technology, and we must know the truth about what we are doing. We cannot afford to manipulate these things based on blind social conventions primarily arising from instincts of comfort and parental investment, for example. We must pull our head out of the sand to face the source of our own destruction, rather than being destroyed by it. Any power or technology has the potential to be used for creation or destruction—that is also why the motivation behind the intellect, behind the use of technology, is of paramount importance. It is easy to live completely in the new facilitative world of a social language, but that language primarily serves more immediate purposes-in grocery shopping, coordinating daily work, dating, small talk, gossip, etc. We must attend to the higher-knowledge facilitative purpose of language. We must look at others and see their ways of coping with life, of getting by, and how they differ from ours. What makes them different? It is both DNA and experience, but DNA can also have a lot of control over the kind of experience we have in an otherwise identical situation. It controls the richness and extent of what we can see, and how we see it. To be able to knit together knowledge into a working continuous whole should be our goal-this is transcendence in both the religious and scientific sense. The ability to see and scrutinize your own brain processes and perceptions is the greatest gift to humanity-the most unique and amazing gift. We have two worlds of reading to consider and we can learn much more by holding the two together for comparison, and mining the knowledge written in both. One deals with the smaller written language and the other with the language written large across nature and the cosmos. We can be aware of both, but the larger language is harder by far to learn properly. The smaller language is a method and technology we learn which gives us the potential to learn much more and bootstrap ourselves into the accurate and true understanding of this other language written large. Meaning is an actual quality written into the universe which is extremely difficult to see fully. Those able to see it may be just emerging now in the modern information explosion. Birds took flight in the exaptation of the previously formed feathers of their forebears. This is the future in which we may be adapting the "feathers" of the intellect to their highest use. The process of evolution has certain dynamics we must consider before taking charge of its speed and direction with our technology. Our inability to see these things is our future destruction like a dead weight on our minds. It is the yawning chasm opened by not allowing our best minds to guide us into the future.

The internet allows us to have a much more universal experience, as long as we are willing or able to see, and are propelled by the desire for knowledge. The free flow and availability of information on the internet transcends the

monopoly of the powerful media. It is a miracle in civilization that, with a little work and searching, allows transcendence of political control of the availability and transfer of information. This is an external example of what we must do within. We must be aware of our own feelings in various situations, and what these feelings tell us about our personality and history, and especially our biological history. We must not edit the information available to our own minds, no matter how unpleasant. To edit available information is to move away from the path to God and to jeopardize the future by avoiding justice. If truth is your goal, listening to your own emotions presents distillations, "theories" if you will, from millions of years of the evolutionary "laboratory". We can tease apart what is life support for the body in various environments, and what is truth in this way. When you know the pitfalls and effects of political forces and hierarchies, then your emotions and the forces within your own mind that are related to these things become apparent. Reading comprehension and ability with analogies is essential to this. These internal things present a ghostly whisper of what kept your ancestors alive in the past. This is where they speak to you. By understanding this, the fear is not automatically shaping your thoughts and mind, but becomes a source of information. People who seek knowledge echo the creation of life. They echo the life force which drives life. These rare people recapitulate the act of creation of the universe itself-both in their growth biologically from a single point or cell, and later in the increasing transcendence of their intellect until it becomes one with the unity which gave birth to the universe—the ultimate patterns of life. The principles we find running through lower biology exist because they are a physical theory that works to keep the organism alive—a pattern cut out of the larger whole fabric of truth, or the fabric of reality. Truth can only come after the elements are bound together fully. Truth is something being built, but we cannot draw the line for this building at the beginning of life. This building seems to have been part of the overall pattern of the universe. It is a huge thing spanning billions of years. The smaller biological principles are internally consistent and coherent theories of how the universe works that we operate within in order to survive—just as we operate within the conventions and small talk of daily life for our immediate purposes. They are living theories—much like the smaller, successive, theories we write down and use to build a whole science, or all the cells and older animal structures we have built on to construct a whole body and brain. We fashion our clothes from small pieces of cloth cut from huge spiral rolls, which are also selected from whole warehouses full of rolls of fabric, because we need to be protected, and survive in this world. We sew them to fit our bodies according to our purposes, but no one really thinks about the larger patterns at work behind the clothes. Even clothing, while superior to animal methods of protection, is a subset of a larger field of truth and perfection. These clothes are only fashioned according to our purposes against the elements. Our own minds and whole societies have these kinds of constraints on them too. Only the intellect combined with accurate purpose-free information can transcend these boundaries and channels. These things are a

byproduct of this greater path. We must not forget and become slaves to fashion. We have been perfecting ourselves for billions of years in this respect—rising from the abyss guided only by the mostly invisible beam of truth which provides the trajectory by which we navigate.

Science has tended to leave this important higher-meaning, religious, aspect of the quest for truth out of the picture. Students learn things blindly, without paying attention to the nature of the learner (us) and the teacher. Both operate behind, and weigh the values of, all the information which we could possibly learn from. We must have a higher universal direction to our learning in order to fit it together properly. Knowing evolutionary theory can help us to learn properly about a great many things including ourselves. It is an excellent framework in which to integrate our knowledge in many areas. It is easy to see bias in someone else. It is much harder to see it within ourselves because our bias IS our narrow worldview. Transcendent information and theories give us better vision within as well as externally. An ant, or a bat, does not focus on the "irrelevant". They attend to specific survival-related cues. Ants pay attention to chemical cues, and that constitutes their world, just as bats follow patterns in sound waves. They are built that way. These organisms do not "know" that they are built that way, they just know what is "important" in their world. We know that this is what "God has revealed" according to their purpose, and level of perfection in their theories. Nature is a strict, harsh, and cruel teacher. These organisms do not know anything else because they are incapable of knowing anything else. They automatically follow their emotions which are much more salient and compelling in creatures that do not have the large cerebral cortex to transcend these things using language and accumulated knowledge. If they interrupt their narrow program, their world falls apart. The genes, and death, make sure they follow the straight and narrow path, even though they only follow a branch on the great tree of life. That fine razors edge of perfection running down the center like a tree trunk to the branches is the path to the future, the spine of a great mechanized space ship on Earth-one that is full of fear and destruction for the unwary. We follow the trunk, and strive for the highest point of maximum light. Animal behavior only becomes intelligible and made meaningful if we get past fear and ego to really listen to what is going on with nature. What animals see as important is entirely dictated by the survival exigencies of their environmental milieu, but they are motivated by partial truth in their own way too-the one uniting factor of all life, and really everything in the universe--whether seeking directly or via something else. Truth unites life and universe and provides the meaning in things. The center forward on a soccer team may be the one to make the goal, but the whole team put him there. It is the same with the entire team of life, and the history of knowledge. Human beings have been blessed with this freedom, the gift that comes with higher knowledge-the ball has been passed to us. Something we consider to be as important as freedom is only important for the transcendence and growth of higher knowledge against the twisting forces of blind politics open to the narrow minded bent on power, not truth. An animal has freedom, but is

constrained by the patterns in the DNA regardless. A free man is constrained not by the DNA, but by the truth of the world for the future. Our best can only be their best when they are protected from the constraining patterns of controlling influences and narrow minds that might seek power. Those with the vision to lead us must be protected from those with the skills to control us for purposes not aligned with the spirit of life. Higher knowledge that benefits all society is the "granary" of the future of higher patterns--a granary that needs to be protected from lesser patterns seeking its riches for their own sake. Surely this is a gift of "gods", or of the pure workings of the universe more than the holy granaries of Egypt ever were. Mass media and political correctness are a bad combination—especially when the artificial constraints on truth are enforced with economic sanctions and in our halls of academia—which we rely on to find truth as the basis of just decisions involving the life or death of the future.

Teamwork really does make this happen-all of it. Animals are reflections of our journey and placeholders of the divine knowledge of who we are and where we come from. They show us our fears, and the pitfalls and triumphs of the path to knowledge. The current state of knowledge demands that we consider all such avenues, all the threads, and that we remove all chains of ignorance from our minds. Knowing how your mind works, how it learns, perceives, etc., should be even more basic to a good education than reading writing or arithmetic. Knowing how your mind works opens you to new possibilities--lets you see around barriers. Understanding the operation of brains will demand knowing how our minds work and how they were shaped. Evolutionary theory tends to show the "survival of the fittest" or nature "red in tooth and claw", but that is primarily from studying animals. If humans collectively reached a high enough point, we would utilize our greatest minds as cathedrals not bunkers. They have a precarious and delicate construction among us reaching into the future as a cathedral reaches to the sky. We, quite bluntly, must not be misled or beguiled into bombing each other's cathedrals or destroying each other by behaving as animals do, and being tricked by lower brain centers or "low men" (King, 1999). If we look into our own minds fully, we will see what lifts us beyond these things. We will see that forming a cooperative and unified society in the quest for truth is our highest goal. Truth is the only thing ever worth fighting for from the higher human perspective. Recent advances have brought to light some complex new questions that will require knitting together of some "strange bedfellow" concepts in new ways-such as our physics following from our biology, or science and religion having the exact same aims. It is imperative that we lift ourselves out of our niches and trenches to see the truth. Our future depends on it. Get ready to see that the world does NOT work like we currently think it does. These niches and trenches of thought lead to all conflict, war, and divisiveness in mankind. They are violent prisons to blind our inner, higher vision of higher patterns—a legacy of a more primitive age that will now fall away as a result of this teamwork.

Compounding this seeming paradoxical complexity beneath the surface, in this mixing of both universe and DNA principles, is the fact that no man is an island from the universe. We naturally aspire to become one with the universe in our learning. It looks like we are islands only from our limited viewpoint (limited in both time span, and breadth of vision-we can compensate for both by learning within and from our world). To expand our view is to greatly simplify this complexity. A man actually stands with one foot in the "heavens" and one foot in the material history of life. Only a man, among the animals, can know and communicate the principles of both universe (Natural law, abstract meaning) and life (DNA). Most importantly, he can know how they interact and what processes gave rise to both. This ability is basic to the nature of our existence. These two factors of life and universe interacting together according to familiar forms build everything we know. Universe and life-they are intimately related. The natural laws of the universe created us originally and shaped us over time-this created our minds. The beginning of a single life from conception actually recapitulates and echoes, in the form of its choreography, the birth of the universe. Starting with a small point (Single cell), the body grows rapidly according to the principles in the DNA as the universe grew and wrought itself according to natural laws from the point of the big bang. Like each piece of the universe contains a symmetry of consistent threads of universal principles (matter, gravity, light, etc.), each cell contains the essence of the original cell--the same DNA. Natural laws and cell DNA are subunits reflecting the original unity. They are selected out of the original unity of the universe which is still there intact even though it is spread apart or spread over by space time. The birth of one life also recapitulates and echoes the birth of the species. Physically, life started as single cells and the developing embryo resembles the development of progressively more advanced life forms--early embryos resemble each other across species for this reason. Years ago, the biologist Ernst Haeckle originally named this now well-known idea "recapitulation of phylogeny". These patterns and forms echo throughout our lives and the universe. These patterns that echo are also basic to how the brain works. The brain itself is an echo of form-using the same basic underlying principles and unity the universe itself uses to construct itself. Our brains are models of the universe and objects of the universe. We must not let the purposes and patterns of the facilitative lower mind usurp and myopically derail this larger pattern and ultimate, living, conscious connection to the universewhether it is within a developing individual or a developing civilization and its genotype.

This basic quality of reflective unity and echo of forms in this logos-echo property of the universe allows symbols, understanding, and coherence to arise. This echo of forms allows symbols and principles to be apprehended by brains. The echo of patterns is a key to a (thus far overlooked) way that the universe is constructed and a principle it operates by. The evidence points toward a theoretical underlying unity, or connections between various forms and patterns. The strange thing is that the universe, and our world, seems to be

constructed or "finely tuned" to give rise to brains and even consciousness. Evolution seems to have happened also by "chance" to give rise miraculously to our brains. Rather than relegating this series of events to fortuitous chance, this theory shows that these things arose for specific reasons and according to the larger patterns built into the universe-these things were neither chance nor supernatural. Why do we draw such a large line between the universe and life? The evolution of the early universe was part of our own evolution too. The universe is our ultimate "house" reflecting who we are. The way we build and construct our knowledge is a pattern that comes from the way the universe itself works. Brains could not know about anything very well without operating according to the same principles in order to echo them. Brain and universe are two ways of looking at the same thing. We look at our brains, which look at the universe. Our brains model and construct our universe. It is a universe which seems to be finely tuned so that our brains could arise and exist in it (via anthropic cosmology discussed later). The universe and life are much more entwined and interrelated than it seems from our past purposeful and conflictridden survival perspectives. The ability to understand the universe and to find coherence in it follows naturally from this intertwined relationship in these larger patterns.

The universe is like a brain. The universe, which we are children of, has "memory" or we would not exist. All consistent natural laws, all the ways the universe functions are a memory in a sense. Persistence of consistent patterns that work are memory. Memory is existence. Memory is our life. The written language is a more permanent memory record from people. The more persistent memories are the higher wisdom-things like the forms of the universe, the DNA, and human wisdom. We are an echo of the universe in many important ways. We have the "memory" existing in the natural laws of the universe built into us too--in our matter and bodily functions, and we also have our own memories of our lives and past lives in the DNA. Like any offspring, we resemble our parents. The older we get, the more we learn, the more we also realize how much we have in common with our longest-term parents--the universe and its workings. The invisible, larger-pattern parents. We also have a lot in common with the ineffable events which created all of it at the beginning. How can natural laws exist through time? What keeps them there if not survival? According to the physicists, the diverse forms of matter truly are facets of one thing--the moment of the big bang. There must be another dimension that strings reality together beyond the veil of space-time, and allows such memory and coherence-threads of unity. Since time and space were created by the big bang, the most timeless things came logically before that. Patterns and forms within the universe still reflect this timeless, transcendent, ultimately unified origin. The consistency of natural law across space and time reflects such a unity behind the scenes. The importance of unity to life is no accident, both in our knowledge and in the unity of matter found in the smaller symmetrical round Earth and larger Sun. All of these meanings are interwoven and related. There IS unity to the universe reflected in these meanings. Meaning

is a valid source of information unavailable to science. Perhaps the universe even "lives", in a way, with its memory. Certainly the "life" or persistence of the universe depends on the current unities of gravity and other natural laws and patterns. Our lives depend on them too. We may very well be the children of the "one God" made in the image of God in a scientifically verifiable sense—God being the "mind", or the effective "consciousness", behind the unified coherence of the universe. Our brains have memory which strings things together, which brings things together across space and time, and the universe has similar properties. These questions can best be answered by brain science in combination with patterns in all other knowledge. Brains reflect the universe—they echo the patterning of the universe. Our brains are the consciousness of the universe living and echoed within the universe.

The structure of knowledge and information itself across time and space is the greatest source of knowledge. Our knowledge of "God", as defined here, must advance, even as knowledge of God, or wisdom, increases in a single individual over a lifetime. We have become orphans in our minds from our parent universe and beyond, because of earthly cultures, peer pressure, and politics--our paranoid life-support system. The incompleteness of our world view allows these factors to take over our minds, our purposes, and our direction. Adopted by the world and its wiles, from an early age we are deceived and blinded. We are all like the unfortunate children in Lord of the Flies (Golding, 1959), savage, stranded children on an island without our parents. That is to say, without direction from higher consciousness, unity, truth. We act out a foreshadowing of our own doom as if it were projected upon us from the future we have chosen by default. Our societies are theatres for our instruments of gauging our future—the patterns and meanings in our culture reflect our future. We choose doom by not following truth for truth's sake, and by not valuing truth above all-and it shows in the events of our civilization. The current weapons and technologies we have, that were made available by finding higher and higher levels of truth, absolutely demand that we need to continue forward or we are doomed. We are the ones chosen to do it-to make the jump to "hyperspace", to a higher consciousness or abstract realm, to heaven, to an ultimate unifying theory, to save ourselves. This must jump quickly to a state of total unity, or we will destroy ourselves with the power and technology made available by getting close to our goal while we are still partially blind, or while a large percentage of the population remains blind. Those who make these economic, educational, and technological advances and those who use them, do not have enough of an overall view of reality to know what they are really doing. This makes us vulnerable in new ways even as they disconnect the older threats to our existence. Automatic programs and weapons installed in our brains propel us through life--making sure we never live it fully. We should aspire to transcend them. In psychology we aptly call these kinds of things defense mechanisms, but there is more to it than that. We must transcend these programs, and also we must transcend the organisms and even the people who cannot see past these programs, even as we transcend the complex but

limited knowledge of our own advanced civilization. It must be done widely on an individual level, and civilization must also do it in our collected knowledge.

Brain science is the sail on our ship out of this savage chrysalis of paranoid and misleading survival programs. A way out of this slow war of the march of life. This Holy Grail is within reach. We must find our direction again. We have been beguiled and seduced into destroying our great leaders of knowledge in the past (Akhenaton, Socrates, Galileo, Bruno, Copernicus, Christ, etc.) and this is the greatest crime against God and the universe possible now. The greatest crime against the forces which made us. We have been manipulated into fighting each other by knowing small pieces of truth-which made great handles by which to control us. That must stop or we are headed toward utter ruin--like the dinosaurs. We must rise above these clever animal natures, and the deceptions they knowingly or unknowingly operate under and sow. There is literally no other option-these are all inexorable natural laws. We must have faith in those among us who are intelligent, full of the patterns of the world, and seek knowledge and truth above all. There is a new world view waiting in the wings that must be brought onto the world stage. We must take flight with it into the future.

By learning we acquire the edicts of "heaven" (heaven as the meta-patterns of what drives and sustains life, and the future), and also of mankind. We acquire these principles and patterns. By careful and reflective obsession to understand both your own mind's history and principles, and the history and principles of the universe that gave rise to it, you eventually forge a conscious connection between heaven and earth. The heavens, in this sense, are the realm of truth, the principles, the timeless spirit that animates and allows all existence which is echoed and foreshadowed in the conceptions of religion. These are the timeless forms into which the universe has patterned itself, and the dimension(s) beyond these patterns which must exist to string it all together. In the ultimate intellectual exaptation (development of a characteristic for a "lesser" reason before its full potential can be realized), we must see the true use and meaning of the forms of religions strung through all previous civilizations and holy writings. The future always has its roots in the past. It may be difficult to imagine literally making such a connection, since we are so used to thinking about these things as ineffable, or religious, concepts without measurable and verifiable aspects. We think of religion as so different from science. Heaven and earth are both reality-even though heaven has traditionally been something invisible. Earth, in this analogy, is the particulars of our times and lives. What we personally experience. What we call our "personalities" are of this earth. They are niches in which we seek refuge-hiding places and holding patterns which keep truth from landing. They are ways of coping with the world-subsets of available patterns and larger truths that serve a purpose. Civilizations also had their share of personality. Civilizations reflect the minds within them, and they are organized around the most compelling minds in their symbols and values—just as our government is organized around the vision of the minds that wrote the constitution. These

principles of our own lives, and most importantly how to find them, should be a primary focus of education. These principles are at least as important to know as external natural laws. It is difficult to see how something as close to home as our very personalities could be roadblocks to our progress. Education and understanding help us overcome these things. We must overcome these things in our inquiry if humanity is to have a future. Gaining this kind of knowledge and insight brings power and brings the life-force into you, the Kundalini or creative energy and will of the struggle of evolution.

Genuine critical thinking--which necessarily starts with knowledge of our own psychologies--must also be nurtured. No true critical thinking can exist without self-understanding, and a denial of selfish desire and the fears laced through them. Desires and subtle, unanalyzed motivations can become the force behind the grandest delusion--like the mirage of an oasis to the thirsty man in the desert. You must cast a light into the recesses of your own mind before you can shine a light for others to follow. All delusion may come from the fear of death, or fear of those things that lead to death ingrained in the patterns and associations of DNA memory, but no man sees farther than he who accepts death as a part of a single life. A man who does not see the strong division between death and life, or past and future. The coherence of the universe does not see it. Motivation for the future glory of a species, and avoiding extinction, are more truthful motives-not because we are making a value judgment about what we want, but because it literally is closer to the truth of things. Critical thinking does not mean just evaluating ideas according to grammar, or whether they fit into the current system. This attitude and thinking comes from fear, and not looking to the future beyond your own life. To see clearly means accepting that you have flaws—big ones at that—and this is mightily difficult for people to accept. Most people are not that humble. Those we rely on to find truth for us (scientists, etc.) can be totally in the dark about themselves because they have large ego's and see themselves as "very smart". They cannot imagine that this very attitude lies there insidiously in their own minds acting as a roadblock to further inquiry. A set of patterns they have come to operate by which has taken root in them in the way of memes (Blackmore, 2000). Ego is a mirage that makes you think you have arrived when you have not. The advanced degree that so often goes with it can also be a mirage. It can make you blind to any further progress, make your mind closed to change. Ego comes from measuring vourself by the visible aspects of others, such as test scores, grades, or the accolades of the relatively rigid culture you live in. The vision of your own heart, or an accurate assessment of your own living, working knowledge is never considered. You may know the correct responses but that does not mean you can transcend them or let go of them to go on to something greater. This also does not mean you are bold or capable enough to see the invisible realm of the larger patterns at work behind these things-in other words, the beauty in them which deeply motivates those who love knowledge. The intimations of a glorious future impart this kind of knowledge which has much in common with art appreciation and religion. Ego is like a static religion of the self. This

attitude is part of their personality, their world view and their place in it, their way of fulfilling needs and coping in this environment. The best scientists have the ability to go beyond this. The greatest truths of all, the actual "coherence nexus" behind reality itself, are beyond time. To get beyond your own personality and soporific, comforting delusions is a necessary first step. Disconnect the paranoid computer, move on and keep learning and growing, stay animated. Just as a child stunted in learning and growth may not survive the challenges of life, all of humanity must keep moving forward in order to meet the greater challenges of the future. It is very difficult, and it feels like taking the first step into the Grand Canyon from sound and solid ground if you have found a verifiable niche that works. Why would you want to do that? What insanity is this? You would do it, because to do so is to realize the secrets of the universe and achieve freedom. It is to meet God, the source of creation. You would do it, because staying in a niche creates a much greater canyon in the future-one in which you will become buried. You need faith in wings, which you get by learning and constructing ones that will not fail. Wings also need to move forward through the invisible air or they fall.

Critical thinking means seeing beyond the grammar of our personalities and culture, and evaluating the current system itself in which we habitually think. Critical thinking requires a truly open mind, and we normally associate what we call "open-mindedness" with uncritical thinking and being open to suggestion. This is wrong. Our language can twist things around to be backward sometimes. I am referring to the most critical thinking there is-even involving being critical of self. It is extremely hard work and the highest demand that can be placed on the intellect. Early writings were poetic (Homer's Odyssey, or the Epic of Gilgamesh, for example) and language was thought holy and sacred because we realized dimly some of these relationships of meaning and knowledge and truth. Language came from the natural poetry of nature. Life is an epic poem. Language also has many practical applicationsjust like technology improves life and solves the problems of life even though it is based on timeless truths we have discovered in our science. Technology can be used by people who don't have any of the originating knowledge or grand theories and truth behind it. Language can be used in this "technological" sense even though building knowledge may be the most important original reason and use for it-the reason it was given to us by God. The Aryan peoples of the European nations thrive on whole truth. To us, without even considering it we realize that this is the best purpose of language. It is hard to think of any other. Other peoples might see language as a way to simply promote their pattern, their survival, apart from any higher aims—depending on the motivations they bring to the table filled with Gods own technologies. The roots and origins of these things contain their true purpose and also delineate who is really the chosen race of God more effectively than any other archaeological evidence. Language has practical applications and a deeper meaning. The universe is also built like this in that the patterns and applications of these regular natural laws give rise to planets and suns, but there are larger meanings to these things

beyond our past survival views of them extending across vastly greater periods of time. We must embrace established pattern as well as the wide ocean of higher possibilities in order to be truly open minded. This can only happen if you learn well and then also are able to weave together all the aspects of your knowledge into a great working whole which illuminates further knowledge and truths. These two ways of seeing can and do co-exist. To see the wide ocean of possibility requires a higher inner vision that has previously been the province of religions. These two ways of seeing are dependant on each other. Even language itself should be criticized, if you have an open mind. We must pay attention to the metaphors we use and ask why we use them (Lakoff, 1980), and what that means. Hieroglyphics made this a little easier because the original source of the metaphors was contained in the visual aspect of the language. The universe is constructed like language and is a "picture writing" itself-which is another reason hieroglyphics are attractive. We must transcend language entirely in our perceptions of meaning. When the limitations of language are realized, you listen to a love letter with your heart. You listen to any writing with your soul. You do not correct according to grammar and leave it at that. B.F. Skinner said language was "social behavior...shaped only through the mediation of other people". We must take this view into account even if language ability is a reflection of deep truths about the universe (it's symbolic construction) and eventually leads to greater things. Here in this concept of social use is a tool to pry open the unseen patterns behind language-a way to shine a light into certain aspects of its workings and liberate greater information. You must connect the dots. The words are inadequate. You must reconstruct the thoughts of the writer to really understand what is written. You must reconstruct the creation of the universe to really understand it. The universe is like a language in this way. This is the most important lesson left out of all reading classes. The meaning of words is relative to who is reading them, and when they read them, and by what motivation they read them-until you gather enough knowledge to see the more transcendent truths behind all these things. That is the miracle of books. We can learn from books, and we can learn from the fact that there are books and how we relate to them. Things read in the past become more meaningful the more you read and learn, and think. Each book becomes like a word in a larger story-a rich context of reality. A photo mosaic of elements indicating a larger picture. Those that noticed enough order to finally construct a periodic table of the elements used their knowledge in such a way that they were able to foresee the discovery of unheard-of elements and unknown substances using even the incomplete higher organization of the periodic table.

There is danger in this. Our ability to learn and our civilization which is built around our learning and seeking is very vulnerable to those with ulterior, or lower, motives. This is the adversity of the modern age we were meant to overcome if we are to survive. Language can be torn from its moorings in truth and even the best-intended on the surface manipulations using this great tool can destroy our future. Like all technology, it can be used to build or destroy.

Dynamite can help blast a road through rock or mine for gold, or it can be used to destroy things. A microphone can be used to spread the truth across the globe or to throw a blanket of high-sounding darkness across all those who burn with the fire of truth and light. The more complex and media-oriented our civilization becomes, the more easily we can be kept in the dark and manipulated by this artificial environment. This artificial environment still shapes our views as if it were reality--just as the more natural environment automatically did for our survival in the past. Those with more immediate concerns and fears can steer us all according to their own desires and agendas and we lose that far-reaching wider vision that gives us a great expanding future. We cannot sell our souls, the bit of the eternal, the quest for truth, the ultimate love that carries us forward, for a bit of comfort or safety. That ultimately leads to a dark, violent existence in a mindless niche. Only faithless prisons and endless labyrinths exist there, not heaven. They are a wilderness of earthly coping strategies in which we hide from ourselves. We cannot afford that any more—the signs of our own destruction have grown too great: insanity, world wars, killing our best people through the centuries, nuclear weapons, lack of interest in important areas: space, truth, religion-and even compromising our hard-won, all-important freedom in the name of "safety". But even though the principles or truths are the most basic building blocks of the world we know, there must be something more. What does the universe exist in? What is the "ineffable" before the big bang? Is this "ineffable" truly a nothing, or does it just seem like it because it shares little with the known universe of space-time in which we were born? Is this "ineffable" just seemingly nonexistent only in the dimensions, and their causal materiality, we know? In another view, that of this theory, it is everything. It is behind the scenes of everything, even us, as part of the universe-weaving everything together, the "substance" of coherence upon which existence is based. Questions like this seem impossible, but may find answers in the most unlikely ways. Radio telescopes allowed us to detect the diffuse radiation of the most impossibly distant event-the big bang. If we turn our faces fully toward the structure of the things around us, we can find evidence here and now—like the cosmic background radiation indicates a big bang in our far distant past—that something is still here, carried over, that shows us the nature of existence. What we call our "souls", this substrate of consciousness, is a piece of this original force which gave rise to and sustains the universe. Perhaps we cannot find a universal particle, a "God" particle, because every individual particle in the universe is actually one single particle existing everywhere at its most basic level-therefore we cannot home in on it with our methodologies of science. It is the unity underpinning everything in the future. Our experienced consciousness may actually be the best picture we can get right now of the most basic feature of our universe. By studying consciousness, meaning explodes into the universe. Consciousness is the theory of everything, the "God" particle that apprehends and brings all principles out of infinite possibility. Consciousness is the forum, the arena, in which the future takes root in the past-by which the future affects the past. Our genes are

building a future—just as we build skyscrapers. The world is built the same way. We have a vision of a building reaching the sky, we have the proper knowledge of materials, and that vision finds its realization in the future that the vision of the past served. The future is always the master of this vision we experience in our consciousness, not merely for survival games, but for the larger patterns and purposes behind all things. People who love and follow truth and its beauty are connected to the farthest future, the ultimate goals of life. The guiding hand of the creator. These truly are things to fight for and strive for, the cities, the genetics, the knowledge that allows us to do these things.

There is an unseen relationship at work in which these truths and principles we see with science and introspection are nested. In which our brains are nested. This is what mankind has previously known as spirit or soul. Even the Greeks talked about the "soul"-long before the "big three" monotheistic religions began. The soul is all about the genetic destinies and patterns of peoples. The Aborigines of Australia speak of non-corporeal spirit ancestors that dreamed the world into existence in the "dreamtime". That primitive religious idea too, fits well into the world view presented here. Everything man does, even the routine, was once a dream in a mind--is it really just a convenient fantasy to say that the universe was also a dream once? This idea may have its roots in some very real patterns they saw in the world and in themselves, and also in their dreams at night. Many scientists would say at this point, "why do we need to consider anything beyond the observable universe of cause and effect before us?" Because the brain and the universe cannot possibly work the way they do without doing this. That is not just some logical inconsistency, but a fatal flaw in our theories of how the world works in general. This is not empty philosophy. We are not questioning the right things. We already posit all sorts of "invisible" theories about the world in front of us—in fact, all our knowledge is "invisible". We ascribe to our theories because they reflect the world out there in verifiable ways. There are still many questions, many ways that the world works left out of our scientific world view. Why do forms echo? Why is there "meaning"? How can symbols represent something else? Why is math possible? Why are metaphor and analogy possible? Why are brains possible? What is consciousness, and why is it unified? Why does everything in the universe seem uncannily "set up" out of infinite possibility to give rise to conscious life here on this world, and more importantly to give a larger meaning to things-a meaning seeming so familiar? Why do we want to say this is not true? Why do people use analogy and poetic imagery to teach or display deep beauty? Why are we so able to use symbols from everyday life and reality to describe things? Why have the sun and moon been such powerful symbols, among many others? Why did the Egyptians build pyramids? Why do so many different peoples have religions? Animals are not wrong in their worldview, just incomplete or imperfect—they lack the overarching "soul" that the future imparts via our larger world view. There is something beyond even their carefully constructed complex worlds and organizations. Some of what they do is a rarefied form of what we also do.

Ants have a social organization. Bees find food sources and have a language which communicates the location of food to other bees. They also navigate by the radiation of the sun. Politics are not necessarily an advanced thing-lots of animals engage in politics. There are politics at work throughout the animal kingdom. Chimpanzees engage in startlingly similar politics to our own (DeWaal, 1989). In the same vein, religion is not just a baseless "opium" of the masses, but a reflection (imperfectly) of something greater and more perfect that we strive towards-a greater perfection and unity of knowledge we build across generations in our civilizations. The reactor driving civilization is this truth-seeking pattern. Religion is meant to point somewhere else, not to be an end in itself. We all know what politics does to religious organizations-it grinds truth-seeking to a halt at the level of the religion and its beliefs and writings. If Plato thought the written language would be the end of thinking, certainly religious writings could be the end of spirituality if we hold them in too high esteem. We should also be able to reproduce the truths of a religion, realize where they come from rather than repeating empty phrases and rituals. Many through the ages were persecuted or killed for trying to start something new or different in religions, or for not following the tenets of the religions of the time. Religions give a bad name to the search for truth-driving the truly spiritual (truth-seeking) away from such things. The political-minded infest these organizations and the spirituality becomes rigid. No religion should change for transient reasons, but when a higher truth comes, they all must change or they become the instruments of our destruction. We share real relationships with these things of religion. Aborigines were not just making up an "opium" for themselves, but speaking about what most deeply drove them and held them together. They hold information that is relevant to us, because it partially is us in the relationships of all life. These information patterns exist and are important because they reflect real principles of the construction of our universe. Even trees reflect our path toward the sun of truth. The "divine right of kings" idea is a reflection of truth, but those who should be kings do not always desire or hold political power, or work through politics. Politics is a job that needs to be done to help organize, feed, defend, and run an organized nation—it is not religion. These are unseen relationships, but they are enormously important ones. Further, science is the art of constructing theories (the unseen) from the observable. All higher thought involves the unseenwhich are concepts put together and theorized from human minds based on evidence. We can see higher principles behind the words we read in a book, and it is the same as in the universe when we experience enough of it.

The meaning in words we read is unseen. You cannot prove the existence of meaning experimentally (at least not yet). It is not "there", but we "see" it because of how our brains work, how they forge meaning and unity. The parallel in the unity of universe and the unity of consciousness form the beginning of an analogy that may carry us far away from this island Earth. The quest to solve the problem of consciousness, and creativity, will prove this beyond a shadow of a doubt. The most unseen, the deepest mystery, is the

timeless unity of the universe and the unity of our minds in consciousness, and the relationship between the two. Our tiny aperture of bodily vision sees only a small slice of the electromagnetic spectrum. By building instruments, and augmenting our vision, by making ourselves "bionic"--to use the term from a 1970's show called "The Six Million Dollar Man" who was "rebuilt" and made "better than he was before". Our technological civilization will allow us to rise from the ashes of the past to meet our destiny in truth in the future. Our coping structures in our brains allow us to attend to and live in relatively narrow social and environmental niches-just like the electromagnetic spectrum we attend to. This is where I start because this is easiest to see. It is much harder to see what may be outside the direct perceptions of all of our senses and instruments. But when this information is gathered together we may see, just as the collective dots of light on a TV screen form a picture, a picture of what lies beyond our experienced moment in time and space. It is a metapattern to things--which is the hand of God moving upon the face of the "waters" of infinite possibility. This is the true wide vision. To see the wide and complex footprints of unity through the sands of time, is to see the signs pointing to the ultimate nature of reality and consciousness. This is the "light of the soul" from within. This is the "dream of our ancestors". This is the grail of the quest for truth. By not letting yourself assume a pattern, or fall into a social niche or way of thinking, you become an astronaut of this invisible realmliving there full time in freedom. The only way to do this is to love and follow truth above all. People like this are the unity and consciousness of a civilization and the harbingers of peace and a glorious future for humanity. By requiring that all people specialize and tow the various narrow party lines around uswhether in schools of thought or in politics, we ostracize and make it less probable that these types of folks will exist and prosper. They may become suicidal from the constant ignorance and struggle against the vast majority on another path—and that is suicidal for all of us. We cannot forget that our entire civilization may only exist for the reasons perceived by these few people-no matter what surface reasons may be our favorite for doing the things we do. We build ramps for the handicapped, but have no place for people who are different or unique intellectually who should be busy knitting together our civilizations future. This theory outlines a new standard and measure of unseen intellectual achievement in the meaning we see in things which will allow us to take action to increase the success and likelihood of these people who are the sparkplugs of the engine driving us into the future. These few people hold the torch of our future which powers civilization.

A bear, or other creature, can kill a man and eat his body for sustenance because the bear also knows nothing of the higher realms of the search for truth—he only knows what his body and survival apparatus are telling him. There is no justice or weighing of who is following the principles of the universe or truth better in the act of such a creature. The man may be a park ranger come to help the bear survive, but the bear has its own narrow, selfish agenda and biological fears and hungers. Truth is a long-term pursuit that

transcends the moment, the generations of life, the emotions, and the animal narrow drives. The power of truth is working to realize itself when people come together under the banner of truth to form a civilization. Our politics has often been "killing the human future" in a similar fashion out of hungers and fears and ignorance. That is a vulnerability of higher civilization-where everyone benefits and survives from the intellectual work of relatively few visionaries and transcendent souls. These same benefits then easily become the most important thing to the more numerous and fearful population who provide a pool out of which these few visionaries are selected, and do all the other work in support of such a team. The benefits are right in front of them every day, but they do not see what the minds behind these things saw that gave rise to them. The proliferation of language and symbols which are motivationally significant also make us vulnerable to manipulation and lies or well-meaning half-truths. Seeking only personal drives and benefits at the expense of truth seekers (who can "blow the whistle" on such scams, patterns, etc.) is a great source of danger to truth-especially when few follow and can understand the full importance of truth. Truth then becomes a "danger" to the system or a source of "unrest" to these people, instead of seen rightfully as something that always increases the ability to survive of good people. Our inability to consider racial or genetic issues or the rigidity of our limited view of things in the recent past (preheliocentrism views for example) are examples of this negative and destructive force. The emotional drives of individuals (frequently at the lowest rungs of intellectual society) that make them seek personal gain at the expense of others are the basest drives. The destructive force. The force that divides men and divides meaning and truth—working against civilization. The voice that says you have arrived when you really have not is also destructive-it merely feeds ego and grinds the quest to a halt. It takes strength and overriding vision to overcome these. They are negative energy and foreshadowing of the destruction of mankind. These are immediate, single-lifetime gains at the expense of the future--by those who do not have the capacity to see or even glimpse the future. A limited overarching soul is still beholden to animal drives and temptations in lower patterns. You can see the origin of these drives, deceptions, and behaviors in the darker forces at work in our evolutionary past--Power, murder, lying, and cheating became short-term adaptive strategies. These things are tools to get what is needed now to sustain life or avoid pain at the expense of the overall path of life, at the expense of the overall life-force itself if intellect is used for these things. These are the darkness hovering over our future-part of the natural order which we can thankfully see and overcome with the right efforts.

If we make an environment which does not allow freedom over the power of the government on the Earth, we destroy the future which was calling forth the building of civilization and its attendant freedoms in the first place. If we pay attention only to politics or to money and practical things such as food or safety, we can find no real deep justification for the "dangers" inherent in freedom. We can find no real reason to differentiate between animals and man

or between the races of man. There are such reasons and freedom is a purposeful thing. The people who wrote the constitution were not seeking pleasure, but actually sacrificed everything in many instances for a vision of the future. Freedom is all about letting the hand of the maker work its wonders unfettered by the politics and egos of men who gravitate towards positions of Earthly authority. They form a grid eventually that destroys the creators, the ones driven from within inexplicably—who have real authority from the creator, who are driven by things larger than themselves. This theory of the universe is intimately related to our times and our future now. It is US.

"Me and not me" divisions are especially strong in people who are chauffeured through life primarily by survival programs. That is part of the plan and necessary world view of those programs-part of a seemingly coherent package to promote the survival of the individual. That alone in no way means it is "true" in a larger sense, just that it works to put us where we need to be. Without higher consciousness, we are unable to arrive--much as an animal sees something moving in a certain way and it interprets this as threatening, when it may be a zoologist coming to help. On the other hand it may be a predator. Animals cannot make judgments so much as operate by patterns. Truth is not a part of these programs. There is a great lesson in that. Truth only comes as you transcend them and understand where these patterns came from in the larger context and milieu in which they arose. It has worked for organisms to use these in the past-the hammer and anvil to forge the steel of who we are. The hands of life forming the clay of the container into which is poured the spirit of the creator in our consciousness. We need to be able to see why a perception and world view of this nature might be important to survival and the advance of life during that process, and how this might need to change, and furthermore how rare the transcendence of these things is. A surgeon needs to know where the vital organs are in a body and what they do, and how they interact, in order to do more good than harm when operating on a patient. Neurosurgeons have extensive knowledge of verbal areas of the brain to avoid damaging them if possible. As we make more and more basic decisions about the operation and thus the fate of civilization, we also need to understand it fully. We need to allow these rare people to emerge, and the world to change from them, by understanding that these larger patterns are at work. Learning transcends these, but it needs to be exquisitely motivated learning to reach high enough. This concept of these programs is relatively easy to see, but we live in a rapidly changing world. The things which might have been important in the past do not apply any more. We have changed the environment dramatically-with new laws, communications, technology, hospitals, and safety. We must get over our fears of learning about the best qualities of humanity, and their distribution in humanity, so that we might wisely take action. We will need to take action very soon, and we have already wasted a lot of time tarrying with destructive sentiments, rather than truth, when knowledge is needed.

In relation to time, here is another example of the type of consideration that can take us completely beyond the programs. Why does time seem to flow?

That phenomenon is also easy to see as part of a necessary world view in order for us to exist—to get to where we are now. We see time as flowing, and ourselves as constantly advancing into a future from a past. That is how we are able to move, grow, and do things. But it is something to be questioned as well. It also might be like the narrow spectrum we see with our vision—only what is necessary for us to be here, or to get to this point. This is the kind of question we must ask. As you will see later, some of the patterns we can see in our world seem to involve time, or certain information or effects, moving in the opposite direction to our normal perceived flow of time. To be chauffeured through life by the programs and always see yourself as separate seems a depressing state of affairs. Our ideas of separateness are a trick of these programs. Remove the constraint of time and we are all one large connected organism linked by our DNA.

Human civilization is unique because we construct our own cultural environment—which allows for strategies of ungrounded symbol manipulation to be developed within this environment. This allows for some to get what they want by noticing the behavioral significance of such things without regard to the truth or falsity of them in the grand scheme. They don't really know what they are doing but learn to say and do the "right things" anyway like a rat in a psychology experiment presses a lever to get a reward. This is the exact same situation as disease or cancer-where the larger pattern of the body of knowledge in civilization opens new niches for different kinds of short-term strategies. We must be aware of this, and there is a key in this logos-echo principle to this too. Culture is historically an end game for the lost, instead of a serious ladder to universal life, as it should be. An enforced (socially) game is a way to artificially make "timeless" the divisions within and between men against the promise of unity. This is destruction. These are the artificial principles, the false idol of personal gain, the play script that the masses live unknowingly. Unconscious culture is an arbitrary, simplistic patterning for the coordination of behavior (see especially Hall, 1981 Beyond Culture). A virtual reality for the ignorant even though they might be highly intelligent. Complex sets of responses convince those that hold them that they know and understand things when they are simply re-using the knowledge from others to sound like they are educated as a social tool. It is easily turned into a prison that lives in our minds and uses us to sustain itself. It is a complex video game that can draw you in and make you unconcerned about the real world outside-even though it is just a fantasy plugged into our emotions by symbolizing the real world. Even the intelligent often weave a flawed culture so intricately into their lives, learn it so well, that they cannot see beyond it. They cannot learn the symbols of it to move on to greater things. They cling to it like a man might cling to pieces of a sinking ship in the ocean. They simply build a larger prison to contain their greater intelligence. The intelligent know more answers. Culture tends to beguile them more because it offers greater rewards to them since they can know and play the game better. Like a body, culture needs some stability in those structural things found to work best, but it must for the most

part be adaptable in its growth and movements through time. It must have a brain and a future. A body has a skeleton, organs, vascular system, etc. which change little but the brain has changed a lot physically in the very recent past, and is constantly changing based on sensorimotor functions guided by learning or knowledge. About 1/3 the energy resources of the body are used by the evermobile and changing brain. Certain concepts should guide culture absolutely, such as eugenics, truth, and justice—but these are relatively few. It is uncanny how the environment always seems to ratchet up the level of its pitfalls automatically to match greater ability. We must be always wary for lies or destructive information. The more there is the potential to break rigid social culture's grip with an intelligent mind, the greater the immediate rewards offered by the living program of such a destructive culture for taking the path of destruction. The knowledge offered in these pages is meant to break us free from this death grip, from this potential path. We must take pains to remove the seeds of this path, and increase the seeds of the path of truth.

This framework of culture is only a vending machine, or a game of sorts, to those who are done with the future. Those who are done building, and cannot see the true miracle of their lives in knowing themselves and others, and the universe. Knowledge of the function, origin, and character of culture makes all the difference. Culture is a complex, self-replicating artificial life form or artificial intelligence. It is a pattern that works for survival like our perceptions and bodies have in the past. Like in evolution, without change there is no chance of a better future. Without the right information at the right time, we can be destroyed. An ant cannot go to the grocery store or get a job, it cannot see beauty, and these things do not exist for the ant and its purposes, abilities, or patterns. The ant has a pattern that works, and cannot even begin to comprehend our higher world. That does not mean these things do not exist, of course. There are things like this waiting outside our current view of the world for us. I talk about ants to throw a large contrast into these things, but the same comparisons can be made for beavers, bears, birds, chimpanzees, or whales. Culture gets its artificial life from us by our reverence for it, rather than the timelessness behind it, and by our emotional and biological ties to it as an end. It gets authentic life as a dynamic reflection of us from visionaries and dreamers who see it as a means to greater ends. Culture can be a false idol for humans only. We were meant to go farther, see more, and have a different future. As a static social pattern for safety or sustenance culture is a tool and framework for our growth. It is not our master. We should not give our lives or fight for such surface things-unless the truths within that culture are what is being attacked for destruction's limited sake. A culture is either good or bad in direct proportion the truth within it. Thinking may be aided by culture and words, but thinking is different from them. Growth towards ultimate unity is different. The transcendent minds born in a culture were meant to be its master, not those who merely seek power. A scaffolding falls away before the launch of a rocket, and a butterfly sheds its chrysalis before taking flight. We should have reverence for the creator behind culture and words, and use them properly and

with freedom above all--as in the Libertarian philosophy behind the constitution of the United States (in God we trust-not political force), or the philosophy of the founding fathers of the United States, or the pilgrims who came to the new world to escape religious and political tyranny. All of these people valued freedom to pursue truth, obviously. Those that live by lies are always afraid, and this fear gnaws at them and drives them to do horrible things. The insecure and fearful hide and try to gain control of what baffles and scares them. They must fight anyone who holds or is following truth because they can be "exposed" by them. In AIDS, the virus now attacks the immune system itselfunleashing all sorts of horrors on the beautiful pattern of a now defenseless body. The destructors may actually just feel uncomfortable and propelled to work against them for no reason they can actually put their finger onespecially when they gain power or control over information systems and people. Someone is threatening their alternate coping strategy, and thus threatening them—never mind that that other person may be more righteous and necessary for the future of us all. We have to watch for these things because there is no justice without truth. Might does not equal right. It is like living in hell--alive but dismembered from the creator forever--for these smallminded people who seek political control only to survive, and who lack this vision. They are experts at manipulation. To be aware of larger truth is to keep yourself immune from manipulation, to keep your soul intact and working toward the future instead of for your own destruction. It is an immune system that functions to keep the larger patterns of society operating in the face of invasion by foreign protein, and thus foreign patterns, that could compromise its integrity and longevity. Truth is becoming an adult, becoming strong with an inexorable energy and strength that is the force of the heart of us all, to become a hero in the truest sense. A warrior.

On the conscious level, a football player does not use a tennis racket, the ballering does not become a mechanic to make a living. The chess champion does not usually become a priest. Imagine a football player wearing a tutu. It is difficult to even imagine because of the programs we ascribe to, let alone to actually do it. All true creativity is rebellion against these programs in a way, creating new higher ones, not just different ones. "Higher" involves seeing the programs for what they are and making something new and greater for the future. For more background information on the process of knowledge, Jordan Peterson (1999) wrote a book about the symbolic process of these knowledgepatterns. The risk of destruction is always the price of moving forward. This is the "dragon" from Peterson (1999) we must conquer. These select worlds or roles can be traps if you are not willing to expand your experiences. You can learn a lot from baseball, ballet, or any of these. You can express a lot through these pursuits. They are symbolic and expressive. Truth, however, is all worlds. Truth transcends these niches. Every person can benefit from keeping an eye on the movement toward and nature of truth-it has always been the ultimate prize of life. The more we learn about our world and how it works in any area, the more immune we are to falling into the traps of lies and destruction. A lie is

♦ *The Textbook of the Universe* ♦

only a slice of truth twisted and served up as a whole world—with cliffs just beyond the seeming kernel of truth you can see. There is no future in traveling in this partial world—it is limited. You must lie more and more to stay there until there is no more substance. Your fear of your world ending, fear of the world you cling to unraveling, is increased by the very narrowness of the path of half-truths and lies you have learned to follow and worship. This creates a phobia-like dynamic in that you avoid information that might push you to the edges of this lie, a sickening fear keeps you from confrontation with lies and change. Columbus never would have discovered America if he had not conquered such a fear, and had not conquered the same fears in his otherwise mutinous crew. They had been taught their whole lives about the "edges" of the "flat" Earth. Going beyond our flat-earth mentality in a world of deception and incomplete truths is extremely difficult. We should take comfort that every new species that walked forward from a niche—eventually leading to us—did this.

Entire species, and civilizations, go through "childhood" stages toward truth, toward adulthood. Children may believe in all sorts of things like the tooth fairy or Santa Claus, but at some point they know they must move on to the larger ideas of adult life. Even adults have similar made-up ideas around which they organize otherwise unfathomable events, around which they organize emotional life-such as our ideas about the "gods of the harvest", the flat-earth example above, or even that leeches applied to the skin will remove "pathogenic bodily humors". At the time these people hold these ideas, they are the truth to them. They serve the purposes of the times. We have similar ideas now-but we still see them as the best truth available. The neuron-theories, the idea that eugenics is something negative which we cannot talk about which obviously comes from politics of special interest groups, the perceived infallibility of religious writings of the past, and many of our other ingrained concepts. At some point in development even these must fall away so that we can find the people to steer our civilization. People who can stare straight at truth and not be seared by the intense light. People of indestructible wings. People who can also stare straight at the "devil" and not be turned or intimidated by the horror of its destructive history echoed in our fears. Humans today are closer to this than they have ever been, but are also more vulnerable to deception by the very tools that brought us this far. Once again, this terminology of "light" and "devil" shows how people from the past wrote about these advanced things in the languages and concepts available to them before the rise in modern science and information technology. Even now, with our modern stories, we still echo these themes. The HAL computer in 2001 A Space Odyssey (Turner Entertainment Co., 1968) was assigned to look after humans and the mission. It became destructive and paranoid during the final portion of the first journey of humanity to other worlds. Hal symbolizes the automatic, life-sustaining programs which worked perfectly in the past. Hal attempts to destroy the true life on board in the end, but is shut down by the last man on board. Like the dinosaurs, entire species can be "aborted" by these kinds of things. Aborted by these rigid patterns gaining too much power. As a matter of fact, that is what extinction is, in

essence. The programs of the past do not apply in the changing environment, and the species dies out. If the spark of life did not adapt, life would not have arisen at all. The idea of "memes" (Blackmore, 2000) as ideas or symbolic structures with a life of their own only in our social environment is also relevant here. PC politics is a classic example of this. We must support freedom of speech and inquiry, we must support those who would follow even uncomplimentary truths. Many important truths are not "politically correct", such as the general differences between men and women in physical strength, emotional characteristics measured shortly after birth (perseverance tasks), and oxygen transport for physical endurance. There are real reasons why men have constituted most of the military or police forces of the civilizations of history. We cannot gloss over these things for politeness or emotional reasons-there is important information there which we will need to survive. We need to identify it, and understand it, not bury it under the outward symbols of our roles. We cannot let truth slip away as the most important fundamental basis for our intellectual environment. All sorts of diseases and memes can infect us thenpropelled by lower forces and approximations of truth. We need an immune system, an unassailable larger framework of information about these larger patterns. Truth, and those willing to fight or sacrifice everything for it, those willing to persevere in the pursuit of it, are the immune system of our future. We must support theories that arise from the evidence (like evolution) no matter how scary they seem in reference to our cherished patterns, desires, and beliefs. Most importantly we must support and cherish our higher minds who desire to follow the path toward truth in all its glorious, fluid beauty. Our greatest resource is those minds which understand the big picture. Those bold, honorable, and intelligent souls who are the vanguard of the future. This will become increasingly apparent as we discover the true nature of life. Love of truth above all is always the gauge of our ability to survive.

The Roman Empire had great technology, but little true science. Can you guess why? Think of their trademark orgies, their politics, their warring. They did amazing things with their knowledge and built great structures, but they did not value truth enough. They killed many of their own truth seekers with power and money politics eventually. Their civilization degenerated. There were a great many things they did not understand and they were too complacent with what they did have. They lost touch with the soul and the spirit that gives rise to civilizations in the first place. For a modern example of these types of forces, see the Harrison Ford movie The Fugitive (Warner Bros., 1993)--a story about the incompatibility of politics and greed with science in the quest for truth (based on a true story). Conquering the world looks like something desirable, and partially fits with many people's abstract sense of what might bring lasting peace. Actually, force will not ever bring the world together. Only truth can really do that-insofar as we prepare a way for it. Movies appeal to deep patterns of reality—that is how they become emotionally gripping. Think about how the Ark of the Covenant killed the Nazis in Raiders of the Lost Ark (Paramount Pictures, 1989). Even though it was a fictional movie, with twisted

and mixed-up metaphors, this symbolism was stark and uncanny. The ark of the covenant of God, dug up from under the great civilization of Egypt, destroyed them because they were not strong enough at the time to stand in the emotional storm that the programs wield. They had vision, and some truth to find and unearth the ark, but not enough information to transcend the programs and stare at truth, to bring it into their world without being destroyed. They had too much fear of destruction, and nations of other truth-seekers were made to fight them for similar reasons-in the ultimate blind horror. Truth motivates people. We must all be united in truth. It is the primary source of motivation for life, as you will see. In the movie they went part of the way, but did not go all the way to truth. They had fear and doubt. Fear kills. This movie is an excellent symbol, or allegory, of what happens in individuals as well as groups. Only when truth is complete can you transcend the boundaries of this world, unsheathe the sword of truth, and conquer evil entirely. That is built into the way the universe works. It has to work that way-just like the natural laws that were necessary to prepare the way for life.

True thinking does not require words. Words are tools that enhance experiences we can use to create meaning in our lives. When the wrong motivations get behind our symbols and cultures, and get into positions of power and influence, a pattern that destroys us can be put into place. We are at a pivotal point in the history of life. Now is the time when all the forces and resources of good and evil are massed on the borders of the future. All our technology can utterly destroy us or it can forever liberate us and allow justice for the truth-seekers and set us on the one true path to the future. The biological mandates from the past should serve only to be a life support system for the body--which in turn is the home and sustenance of the more human side in our intellect and its apprehension of truth. This is the proper role of desire, fear, etc. life support. Information. Not a blind alley to hide in. Abraham Maslow's hierarchy of human needs places the more human truth and freedom pursuits at the top of the hierarchy. The Hindu idea of reincarnation echoes this, with regression to lower life forms for some and progression beyond the animal toward nirvana (transcendence) for others. The patterns of the world are echoed in their caste system also--this is like an echo of this division between the highest levels of life and those who seek only to survive as animals without question. It shows what will happen in the future in terms people can understand now (or then, actually). We will reach a utopia of no more conflict and truth eventually if we stay on the right path. The path of truth. We must accept the fact that there are a dwindling few who have the capacity to keep civilization adaptive, and have the capacity to keep us growing. The average person may not see these people at all, or discern much difference between people because most of our social interaction is unconscious, relatively simple, and automatic (Langer, 1989). Anyone can talk about the weather or say nice things-Whether they are creative or destructive people. We must be bold enough to see this. Anyone can take up arms or fight for something, what we truly need is those who only fight for truth and the future. A modern peaceful

society must have many such ever-vigilant warriors and also leaders of unselfish warriors for truth. The modern society of peace does not make warriors obsolete. We cannot do without them ever—they will always be needed as conceptual warriors (as well as actual warriors) to weed out the destruction in our midst intellectually. A body can never do without an immune system, no matter how it is filled with love for life intellectually. As the complexity of our knowledge rises, we must seek to provide a place for them and increase their numbers in our civilization.

Intelligence and especially truth-motivation are the holiest genetic qualities for the largest religions of the world if you pay attention to what the patterns of the world and life are actually telling us. To value these things and embed them into your culture at every level, will automatically set up environmental contingencies that promote truth-seekers. We select them out for greater survival probability, and in turn they make our culture more and more truth oriented—it sets up a cycle of creation in the values that grow from this. We have quite the opposite situation in society today. In fact, much of what is actually good by long-term objective and truthful measures is now considered evil or bad. People who are concerned about genetic differences are politically incorrect, those interested in intellectual pursuits are "geeks", etc. Eugenics are not considered "politically correct". Do you feel the immediate reaction that this word triggers in your pre-programmed cultural proprieties? Can you see beyond this programming to the truth of the beneficial aspects of eugenics? Are you able to overcome the fear this word arouses? Can you even entertain the notion that perhaps more study should be put into this concept? This is what it means to pay attention to your mind and it's emotional reactions, and to think beyond them. For billions of years, the eugenics program of nature shaped our minds. Political correctness, and the selfishness of the "me" generation, have led us all to make very damaging choices about our future. We need to remember that few attain that vision which shows a path to the future. We have taken on the easily manipulated views of the masses instead. Mass media has thrown a wrench in the works of civilization in this respect. One organism always carries the torch of life out of the niches in evolution. The ability of that one to do this is the key to the life-force of the future. Freedom ensures the success of the future. To question life, to question why we live at all is part of the soul of humanity-part of what constitutes the very ladder we all climb-towards the heavens and toward truth. Science is part of the essence of what is best in humanity. Psychology and Brain science is the best of science because it can allow us to question ourselves and our motives. Psychology offers keys to unlock the programming in your brain, and set yourself free from the base desires, fears, and other biological constrains. Brain science is the culmination of all human science, and the key to truth. It must move ahead, it must not stagnate under the weight of those without vision. We must move quickly now more than ever. What separates a man from a lower life form is simply the ability to see within-beyond the moment, beyond the raw data from sensory systems or desires. That is what raw emotion is-data from millions of years of

choices made by animals. We follow these directives until we eventually see so well beyond them that we transcend them-transcend the animal within us. The abstract organ of perception within (consciousness knitting together invisible concepts and meanings) is a quality by which we align our souls with the creator of the universe. We use it to overcome the horrors and fears of the past, and to understand the patterns and principles of our universe and our existence. Our intelligence and consciousness are a cathedral in which the works of whatever created this universe take shape in their most complete form. It is another invisible and internal level of evolution which enables us to see the otherwise unseen world. A bear or a dog can see the world that we do with our eyes, and an eagle in the sky can even see better than we ever could, but the internal eye of meaning and abstract thought, the eye of transcendence that paints another world over the world of compelling animal instincts is the true miraculous vision of humanity. If we had not developed eyes at all, we never would have seen light. Without this complex and unutterably beautiful inner eye, truth and "heaven" cannot be seen. If we allow negative patterns of information to take over our culture, we will be creating a cave where this vision cannot flourish. This vision is our future, and it is the force which pulled life into existence itself. If we create a dark cave, we snip the thread to our future by which we were guiding ourselves through the wilderness. We turn away from the path drawn for us by the patterns of ultimate creative unity toward darkness.

As a brain scientist, the qualities of consciousness I experienced eventually led me to think we were on the wrong track. Brain science as currently conceptualized could not possibly be the whole story. I investigated other classes of cells in the brain besides the well-known neurons, started to compare the processes of both neurons and these other "glial" cells, and eventually became a consciousness researcher directly. I have gathered together some articles I have presented at conferences around the world and expanded them into this book. Even though this is a longer book, there is not nearly enough space to show or go over all the evidence for these ideas. I had to pick and choose. That is the difference between traditional science and this new type of knowledge, and the new sources of information I am presenting here. You must put together the things I am saying and transform your view of the world to see for yourself. If you do, you will begin to see everything differently. These ideas are keys which can unlock knowledge in many areas of human inquiry. The first thing that struck me as this came together was the overwhelming amount of evidence for various aspects of this theory. There is no end to it—it is staggering. It is the missing link to a greater understanding apparently the greatest understanding of all, from the evidence I have gathered. You must accept that the echo of forms is a legitimate way of discerning evidence about the world in order to accept my new experimental evidence, and to understand the workings of the universe. That should be easy to do, since we use this principle all the time for other things. Mathematicians should be more than ready to do this, since they already rely on this principle for all their work,

for example. Incidentally, so do poets and novelists. This one principle greatly simplifies and binds together everything about our world-including how brains arose, how they work, and how we can come to learn anything at all. It gets to the heart of why we ultimately construct civilizations. The problem in the past was that we did not know how to ask the right questions, or where to look to find solutions. Religions required faith, but were corruptible, incomplete, and mysterious. Anyone can say that there is one thing which explains and binds everything together, it is another thing to find evidence and explain it in detail. Some of the best evidence is from brain science, but the evidence for this "echo" factor is also a quality of all our sciences. Another roadblock is that I am trying to use words to describe these concepts, when they are truly larger than words in a quite literal sense, as you will see. Consciousness is the largest factor in the universe because it echoes that which binds everything together in its most complete form. This is the god-power of the "soul", this impetus behind our abstract strivings and unifications of the events in the universe. Knowledge is power because it increases consciousness and moves us toward the creator.

Our language and the basic concepts of language facilitate learning and interaction in society, but they are more like a cocoon for the birth of meaning and these other factors behind our existence. A solar system and the entire galaxy share a lot in common-and these commonalities beyond the specifics of their structures, the overall patterns within these systems, point to universal principles in the workings of gravity, matter, and space-time. Going beyond the given information in the separate organisms of the animal kingdom led us to evolutionary theory. There was a haunting pattern to the interaction of substances which eventually became chemistry. The words and simple patterns we use to interact smoothly in society can also make us seem much more similar that we are because they are learned. A Nobel-prize winning scientist can chat about the weather with most anyone, but I guarantee that his understanding of weather systems is much greater than the apparent similarity in the patterns the two people are exchanging for social reasons. The vast inner experience of the higher mind, the invisible unified world we cannot see, here again is most important. It normally never comes in to play in a practical everyday sense. The buzz words and concepts within schools of thought in science are the same way-we can chat within these patterns with wholly different perceptions, purposes, and inner experiences. Some people have vast ability to go beyond the given data-which interferes with the normal learning of these more rigid patterns at a certain level. When listening to a lecture, for example, a person like this might be triggered by the information given to think about something learned earlier in another class. Meanwhile, the teacher keeps going and the "good students" keep taking notes. In the other student, the data from the previous topic is being integrated into the larger whole of the knowledge from the previous class. There is something larger being built-the kind of information you need for transcendent creativity. The "thoughtful" student has missed some things that will be on the test, but is building a much greater

working knowledge which can eventually become an engine of learning and enlightenment on its own-surpassing all "normal" learning. Our ideas of intelligence are presumptuous in that there are certain characteristics that we think are intelligent, when there might be whole other levels, much more rare, which are left out. Our ideas of what is important in intellect, and how to recognize it, are incomplete. In the modern world there is so much written about existing theories and communicating of them in the classroom, that generative thinkers are not valued. It doesn't matter that you can re-invent the wheel-we already have it! If somebody does well on an exam, that is all that matters-not how or why they came up with the right answers. Motivations and styles of learning do count-these distinctions mean everything to the future. Mass-production of students rolls over these truth-seeking people like a steamroller--pressing them into an intellectual mold. This mold can be viewed as "a narrow labyrinth under the great sky of the sun of truth" from the Greek myths of Icarus and Deadalus. Many cannot do anything else-they lack the ability, or the keys to get started. Many students try to get through school by reproducing the symbol patterns without really understanding the concepts and the meaning beyond them. These students think the mere reproduction is what is important. They may even actually buy or plagiarize papers or old exams to get by. This is much harder to detect in the vast information explosion in society. They lack understanding of the true value and power of learning, and the key information available in the process of development and concept formation itself. This is an excellent reason why we should re-invent the wheel, so to speak, in our learning. We must recapitulate the origins and progression of abstract thought and the human struggle for vision through the ages, just as our ontogeny in biology recapitulates phylogeny. Students do not know what is really important, and teachers who went through the same system do not either. They pay too much attention to grades and rewards rather than valuing learning for its own sake. Gold has an intrinsic value by its eternal bright color and rarity. Where some see eternal intrinsic value, others only see a means to other things. Then they get into positions of power, thinking that they know a lot, and are threatened by any truly generative thinkers who do not respect the boundaries of their symbol systems and rigid sub-cultures. That is IF someone who truly loves knowledge above all ever makes it that far. The system is not in any way built for them. It is a negative environmental constraint for all humanity in this way. These concepts in this book will help to change all that, and restore a future to mankind. It is the meaning that comes from the true internalization of interrelated and fully mobile and functioning concepts that allows creative and generative thought. From the best auto mechanics, to the best quantum mechanics, this is a key to their success. Problems arise when you try to truly explain any aspect of the world using only symbol systems-gaps remain. (Godel's incompleteness theorem (Wang, 1987) in mathematics highlights this problem, for example). There is a very good reason for this. Brains are already a subset of reality, and language is a rarefied subset of the information in our brains. I leave it to you to judge whether I do a good job of

relaying these ideas and convincing you of their validity beyond the word systems I am using. The theories I am presenting here unlock the meaning in the things around us, in events and in the forms that nature takes. These ideas also unlock the power of the soul.

The ideal of science, when moving toward truth, is noble and powerful. In practice, however, science suffers from many internal problems. These problems arise from individual or social psychological factors, some of which have already been mentioned, which keep science from steadily progressing toward the truths of the universe--in ways unforeseen by philosophers of science. Conditions for science have changed over the years--both in the laboratory and in the minds of those doing science. Our minds and our science itself must change to meet the changing conditions in the quest for knowledge. Educators and scientists are so immersed in the vast sea of information surrounding the current (but obsolete) systems of learning and knowledge that it is becoming much harder to see the transcendent, creative viewpoint so important to innovation and adaptation. The vast amount of knowledge makes those people who are able to encompass and create with that knowledge, that much more rare. We make up for that to an extent with the vast army of more narrowly specialized scientists at work. Larger populations also mean greater probability for the rare events to happen. Human creativity is our most precious resource. Grade-driven, competitive, mass education combined with standardized testing as a gauge of "thought sophistication" are major sources of problems. These motivations and teaching methods are leaving students unable and unwilling to think. They are robbed of initiative, boldness, and independence. Their motivations come from others--in history or their peer groups. They learn to play games. They themselves then take positions of power and control in society--ratcheting up the threshold of transcendence, locking down the prison of conformity. The most important learning is left out of school. Adding to the problem, parents don't feel responsible anymore because children spend so much time in schools. In many homes, parents do not have the time and/or both parents work. Only parents have similar genetics and in many cases they are best suited to truly understand their children's needs, strengths and weaknesses. Parents can learn a lot about themselves by seeing the reflections in their children-which can help them advance. Ours and others' brains must become our most prized possessions and hobbies. We need an owners manual, a guide to maintenance and repair. The unity behind the universe reflected in our theories and knowledge is the guide and owners manual to our brains as well.

Many of these problems are a result of the vast ocean of knowledge arising in only the last century. The growth of knowledge has changed the way things are taught. There has been a steady alteration of minds and methods away from holistic, generative, novel modes of thought towards static retrieval and application of prior systems of knowledge. We now find it necessary to learn so much that there is little room for independent, intrinsically-motivated pursuits. There is a new and unwelcoming environment out there for anyone interested in

such creative intellectual pursuits. Perhaps the answer is that we need to take the next evolutionary step to grow with our knowledge—reengineer ourselves. Eugenics to increase those of ability necessary for civilization and truth is easy and relatively benign. With the growth in knowledge of our genetics, the tools are being placed in our hands to eventually have the ability to actually reengineer ourselves. We will be able to manipulate our physical makeup. As with any power, these tools can also destroy. This potential destructive power is another urgent reason why we need to know the truths behind life, and the path we are on, and why we need our best minds increased. The paranoid, combative machine programs must not retain control of our destiny. Those were meant to be transcended, they were meant to stay in the past. We have many other science and educational problems which also have been left to grow in the dark for many centuries that need to be addressed.

Plato actually thought the written language would be the end of thinking. In the modern world there is so much more to learn and so little room for natural thought and dissent that now, more than ever before in history, Plato was right. Just as a building restricts your vision and limits your horizons while giving you shelter, safety and warmth, so can culture of patterns of knowledge also be a pleasurable, comfortable trap. The key is in how and why you learn. Again, it is important to remember that two similar or identical surface behaviors can be completely different depending on what is behind them. Motivation is everything. A sheltering house can be a staging point for a journey, a place for work to be done, and a planet can be a base for interstellar exploration, or they can both be a prison. It's all in how you look at these things. Your true motives and goals count more than anything. The path of least resistance for modern students of the intellect is a wide, straight avenue of memorization and objective testing. To do well, students must know what others (especially their instructor) historically have thought. Science and schooling increasingly have more in common with religious indoctrination and script-memorization than the ever-mobile and self-critical ideal of the scientific quest for knowledge that Karl Popper, and others, spoke of. In this view, science is supposed to be a well-organized, studied, and written down version of how our minds work at their best. Critical-mindedness in science has become ridiculously misapplied. What is called critical-mindedness is more like a verbal bulwark against threats to existing dogma, rather than the relatively more important application of criticism of that existing dogma itself. Many career scientists may hold this dogma in high esteem, have a lot of grant money for it, and do not have as much of a willingness to sacrifice these things. What is called criticalmindedness is actually just defending your hillock of fame and fortune, at whatever cost, against attack. Education becomes a political organization instead of the free pursuit of knowledge. These become the rules and playing field for a particular game. A game that is the destruction of the ultimate goal of truth in the ones who play it. Politics have overtaken and occupied our universities and the minds that run them. These motivations create egos, and Politically-correct (PC) political contingencies, which can destroy the truth-

seekers who encounter them. A recent book from a history professor at a prestigious university (Bellesiles, 2000) seriously attacked the second amendment of the constitution of this country-asserting that the second amendment is not an individual right like the rest of the bill of rights, but promoting the idea that it actually referred to the National Guard. The National Endowment for the Humanities funded this work. This book was later shown to be systematically falsified, and much of it just made up (see Newsweek May 20, 2002 p.76). Much of the data on which the central thesis was based did not exist. This book won a national award and received a lot of attention for far too long. The false nature of the evidence was not discovered until an overenthusiastic supporter began looking for the sources to expand upon the author's PC thesis. Even though it was discovered to be false, it certainly impacted public sentiment for the time it circulated. It still sits on public library shelves too. The Newsweek article stated that the questioning of the data in the book by the National Endowment for the Humanities was a "small event" which they said was "noticed by almost no one". The original impact of the release of the book, and the supposed thesis it contained, was widely noticed and still sits in the minds of those who read it or heard of it-just as it still sits on library shelves. Politics detaches scholarly pursuits from truth. The style of a scholar on the surface is not enough. We need the rare and real substance of true scholars. It is a testament to the élan vital of the knowledge-seekers that our worldview has been overturned several times in the last few hundred years. We are getting close to the next level for life-the prize and goal of all civilizations, and that increases our boldness and the necessity for speed. We cannot fall off the path now at this late stage. Students put through this system have their self esteem (and rationalization for the bucket loads of money they spent on their education) based on the idea that they are now smart and can make good decisions. You cannot tell these people that they might be wrong anymore-since they have been to college! The same thing tends to happen in our graduate schools-only in a more amplified and damaging manner. We are neglecting to understand how these patterns are training our minds to operate. Although they may now practice science in its narrow conceptual paths very well, the overall themes created by a working knowledge, fully knitted together according to logic, drives the pursuit of knowledge much further, and creates another order of power necessary to civilization's future. Like the periodic table of the elements, a grand working knowledge based on truth, not a political or social agenda, can indicate inconsistencies or gaps in knowledge much better. It moves us into the future and powers our larger patterns. This is the type of unselfish knowledge upon which good decisions are based. We need to provide an environment of rapid advancement, and one that allows the completely new idea to emerge. Truth is as brutal as nature, it steps on toes, it is not polite to everyone. This psychological drama of insecurity, lack of creative thought, and combating change is the root of the impact of Einstein's statement, "Great spirits have always encountered violent opposition from mediocre minds."

There are principles behind the formation of all cultures which, when understood, can liberate. These principles can end our confusion and set us free. For example, all cultures are tools for behavior coordination and survival. Cultures maintain power hierarchies. Cultures often become barriers to thinking about truth. Culture is often built by fear and greed within a civilization like a great artificial game-world. We must always be sure to try to align culture with the pursuit of truth. Enforced freedom is a great way to do this. In the past, visionaries had the option of leaving entrenched and hostile cultures--even as late as the colonial period in the new world for example. The other options were to become slaves of the power structures, to solve specific technological problems for people in power, or be imprisoned or killed, and (in the extreme) even to commit suicide. It is hard to imagine the social situations of the past, but all you have to do is see how people act and react today. This is a sort of "Psychological archaeology"--the study of the now obsolete social systems that gave us our psychological tendencies, and our attentions and the emotional terrain of our subconscious minds. If we do not begin to study these, if we refuse to be aware, we will destroy ourselves against our subconscious minds, our blindness, as surely as a ship hitting an iceberg.

The most transcendent elements, and the transcendent trajectories to our abstract thought are installed in a culture by the most advanced minds and genetics of that culture. We must expand this element and thereby the fluidity of our collective minds. We need cultural programmers based on transcendent truth, not any other fearful or selfish motive. We need those who bear the torch of life. It is difficult to accept that the majority may be wrong or worse--even insane or deluded. When we do not get whole information, or the whole truth, we cannot form opinions or make decisions properly. There is rigidity, disagreement, war, and death. We direct our energies down false paths and selfdestruct. Over time, this derails an entire civilization-especially when this information is a key piece of the puzzle about who we are and how we got here and where we are going. A lot of this missing information is presented here as the foundation of a new world view. This world view goes right on top of our everyday more self-centered purposes. Using the ubiquitous ant colony analogy, the ant moves according to the chemical trails set down by foraging ants who have found food. It is set up to react to these chemicals in front of it which automatically are triggered to be released by finding food. The paths laid down by these explorers of the unknown provide a path for the other ants, but they do not see or know this at all. The overall pattern created is uncannily organized but they do not see it-they see food, paths, other ants, etc. Their world is broken up into the reactions on a more immediate level. Humans do this same thing. We go to work and do what is in front of us while our bosses take care of the organization of the larger patterns. We create and shift our own patterns. At the level of the national government, we have people who help coordinate the people and patterns-set up the paths-for us to follow in our country. These paths are enforced by the "artificial death" of prison or ostracism, and even actual execution. It is all a form of genocide, but we must

realize that we need people who see the larger patterns of the universe to direct us always. The larger patterns are not seen by everyone, and the worker ants may wonder why they need a queen. The patterns of plants growing toward the sun, reptiles basking in the sun, bees navigating by the sun, northern European tribes of humans watching carefully the patterns of the sun (Stonehenge), humans waking and sleeping according to the sun, lions manes looking like the sun, and different religions worshiping the sun, all have practical considerations tied into them that are also symbolic-the material that poets might use. The only organisms who completely transcend the narrow pathways of practical considerations in these things are humans. In fact, the encephalization in organisms (the growth of a large brain mass) is the process of the greater and greater transcendence of the completely practical behaviors of lower organisms. Our businesses, our advertising, and our emotions all follow these greater patterns of meaning and create a much larger coherence than we are able to see in most cases. Within the practical constraints of our relatively rigid cultures, these things are behind the scenes. We can operate our whole lives within a culture and never see these greater things. By learning the meaningful elements of life, we can begin to translate these hieroglyphs of truth. Things which seem meaningless to our well-trained practical minds begin to take on higher meanings. A new order is seen where previously there was only seemingly random chaos. We must have this vision, because it tells us who we are and tells us everything about the larger patterns of where we came from and where we are going. To the extent we forget about them, our genetics, our culture, and our civilization degenerate. To the extent that we are aware of these things, there is no limit to our future.

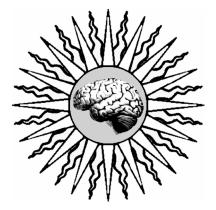
The following four chapters form the beginnings of a new science of these things—based on the all-important concept of consciousness. I never set out to prove anything, or to see these things. I just wanted to be able to make good truthful decisions about life and the future. I never stopped moving toward greater, more complete truth. As I gained more and more information in my experiences, my thinking on various topics changed drastically-like stages of development. One of the things I learned, after much digging beyond the politically correct writings on the topic, is that genetics matters. In fact, nothing I ever learned has ever led to a greater understanding of the world and the peoples in it. Evolution teaches us many things about ourselves and the world around us, but its greatest truth by far is how genetics affects our path in life, our politics, and our general personality tendencies and patterns. It also affects our vision. We see things differently according to the patterns we assume, and certain patterns are only available to be practiced by those who have certain abilities. We are all quite different down deep below the regular patterns of our learned social conventions. We have different levels of attraction to truth for example. We have different levels of ability to learn and use social patterns which may have no relation to truth whatsoever. We have differences in our ability to see things in the world, in others, and in the future. We may be able to spout many words in reference to the concept "door" for example, all of which

may be accepted words related to "door". Some, however, can see the whole door, feel its functioning, put the operation of the hinges into the picture exactly and see the molecules reacting to the door opening with the slight heat of friction produced. They see the knob and the inner workings of the door. They build a whole working model based on many concepts known deeply from the molecules up to even the metaphoric meaning of "door" itself. The door has a greater meaning and congruence to reality in this whole functioning picture. That is the root source of transcendence-these wholes that we construct from our knowledge full of latent, sublimated information. Much of it is nonverbal information—highlighting the fact that the source of all meaning in the verbal is the non-verbal. The functions and relations of these things do not really exist in just the words. Words are symbols and by definition not the things they represent. They do not work like reality, they work like our social world and its various social forces. Each person must build their own complete world from which to interpret the behaviors of others and the things perceived in the world. People have vastly different abilities to do this, and it is difficult or impossible to tease out and test these things since they are transcendent patterns and nonverbal—especially at the higher levels of ability. It almost requires faith on the part of those with lesser ability because they cannot understand what the other sees-no matter how it is explained. Vocabulary is greater, and some other abilities can be readily measured and compared, but these are imperfect measures. Similarity exists between all species-as a result of our common ancestors, and our common origins and needs for food, etc., but there is a limit to a chimp's ability to understand the higher purposes of a civilization. There is no explaining to a rat why it needs to leave our house or city because of the disease it spreads-it just does what its genetics tell it to do by hiding from humans and sneaking around under cover of darkness. There is no explaining to a bear why it needs to leave your house—it knows nothing of higher principles. If you act the wrong way, it triggers a violent response from the bear based on its genetics and you could be killed. Rationality and higher patterns are not the strategy or pattern of a bear's life. The only thing, once again, that can truly bring peace is whole truth. This is a level that can be reached by us now in the information explosion of modern society. The one big problem is that we are so busy looking in front of ourselves for our own interests, that we miss the entire reason for a civilization, an evolutionary process, and a universe surrounding us. Our bones give shape and structure to our body, but modern science shows us that bones have another, more hidden, function-they also produce the life blood which sustains our lives. We can no longer follow these same old patterns of shape and function blindly. The obvious is not always the truth, the whole truth. We need whole information to make good decisions. Whole information is life. We are entering a new era, and the time has come for a new age of knowledge on this earth. It is written everywhere for those who have eyes to see the trajectories of these things through time. In the next four chapters, I cover evidence and methods which lay the foundation for understanding the unity of our consciousness which strives toward and

reconstructs the unity found in nature and the entire milieu of our lives. This is a theory of everything, and so I can only lay the foundation and present some evidence for the unified coherence at work. Once you begin to see these patterns, and your mind is freed, the evidence is everywhere in everything. Consciousness and brain sciences are the keys to understanding all of these things.

These ideas are reflected in the "invisible hand" of economics, and the "invisible hands" which shape civilizations and all life. A beaver certainly "thinks it knows" how the world works, or it would not rely on its feelings and knowledge to survive. Those things are its world. If the environment changes, it will die. We are different because we can use focused, unified knowledge to adapt through changes and predict them. What we call "God" is the ultimate natural law and author/artist of the universe. There is no turning away from it. Most of the evidence for this theory is like the evidence for the beautiful theory of evolution-vast in scope, but tied neatly together by a similarly haunting, unifying, beautiful, predictive pattern. Try to read the evidence in that spirit, looking for the pattern I am presenting, which will be summed up in the last part of the book. Do not get bogged down in the "black and white" of the details or you might have a difficult time of it. This is a new way of viewing things, a new way of using your brain to see meaning. Patterns repeat. Like the dance of life and death itself across the evolution of the ages, this book will be a dance of destruction of a narrow world view and also creation of something greater. That is how life works-according to the Hindu religion's ideas of the dancing god Shiva, and the theory of evolution. A recent movie (Kate and Leopold) talks about the concept of time travel (conceptualized as a tear or breach in the fabric of space-time in the movie) as a thing that may be impossible to grasp-like a dog that only sees in black and white who can't perceive a rainbow and thinks it's not real-but it is there nonetheless. The universe is not what it may seem. This theory ties together all abstract thought in recorded history, and even before--through all of evolution, to the time of the big bang itself. It is amazingly all coherent, and only coherent with this way of conceptualizing it. You can follow the ripples in a pond to find the center where the stone was dropped. This theory shows how one force drove the development of the universe and the development of life itself in all of its seemingly diverse forms. One haunting, powerful, inexorable force—the most basic law of the universe in which all religions find their ultimate harmony. These ideas allow us to see the grand plan of God reflected and echoed through the major forms in the universe and echoed in the grand themes of life.





Even if I revolve the wheel of truth, they would surely be confused and incapable of accepting it. They might, on the contrary, misinterpret it, and thereby fall into evil paths, and suffer therefore much pain. It is best for me to remain quiet and enter into Nirvana.

--Buddha (Agama Sutras)

Though men are inseparable from the Logos (thought of the one; Zeus), they are separated within it; and though they encounter it daily, they are alienated from it.

> --Heraclitus, *On Nature* (cited in *A History of Mysticism* by S. Abhayananda)



CHAPTER 2

Going Beyond Our Brain's Naturally Limited World View

Brains are a model of the universe we live in. Everything we see comes to us via the brain. We point our eyes, our retinas, at something and we see the patterns transmitted to them via the space-time oscillations we call light. The various motions our eves follow when we look around are also painting a picture for us based on what we think is important. All organisms have greater or lesser subsets of reality staked out for their survival by what they can and do respond to. They have developed into a niche in the world, and their perceptions and attentions reflect that world they live in. We see many wellknown examples of this in nature: Bats hunt at night using sound waves, and live in caves. Other animals use smell and pheromones as a powerful tool in building their slice of reality, and even the lowly bee has a narrowly-focused language of sorts (Von Frisch, 1971). Dogs bare their fangs and assume certain postures when threatened, and other dogs tend to focus on these things in the establishment of dominance hierarchies. Males of any species tend to focus on areas in the environment we call "females" for obvious biological reasons. Human males buy certain magazines, flowers, etc. for similar reasons. Beetles detect pheromones, and travel over great distances to find mates. Human politicians focus all their attention on a certain subset of competitive relationships between peoples in order to force folks to do, or not do, various good or bad things. Chimpanzees engage in politics also-surprisingly like our own (DeWaal, 1989). A small fish called a stickleback attacks the color red to force other males out of their territory, since the males, when ready to mate, have red breast coloration (Tinbergen, 1952). Females in general tend to be nurturing, and vigilant for dangers to offspring. In another striking example of perception related to survival, baby chicks will attend to a bird silhouette and have an escape response only when the silhouette is moved in a particular

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direction—so that it appears to have a short neck and long tail like a hawk (Tinbergen, 1939). Moved at the same speed in the other direction, so that it looks like a goose in flight, there is no effect. The chicks engage in this behavior without any learning-it is a genetic trait. Since we have larger, more flexible brains than these organisms, we can see that their behaviors are narrow. We see a certain logic to their behaviors which points to the idea that these behaviors were necessary for their existence. These behaviors are why they are here now, what they do now that allows them to continue into the future. The organisms which made it to the future had this knowledge built into them, and therefore into their actions and interactions with the environment even if they are unaware of it. These organisms do not know why they do these things, they just do them. If they did not, they would not be here. Those behaviors in these organisms have great meaning that only we can see with a lot of study, but that are the organism's time machine-their ticket to the future, the things they bring together through time and space which allow those organisms to extend their pattern into the future. In our own behaviors, we know that certain things we do are a subset of our available repertoire, and we know intuitively and from experience that we do things we are unaware of at times. Are there larger more imperceptible limits to our own perceptions and overall worldview that are blind spots for humans? Certainly all the evidence we have from animal behaviors shows one thing quite clearly-all perceptions, and perceptual organs, and the behaviors they are involved in, are survival-related. It is important to understand that humans are the same way, but our patterns are larger, more abstract, and extend over much longer spans of time-and so they are much harder to see.

Stickleback fish attend to red things, and will even react to a ping-pong ball painted red more vigorously than the real thing! If only stickleback fish had some way of knowing truth, they would see how ridiculous and counterproductive attacking a ping pong ball is (education, larger brain, motivation to find truth, scientific methodology, etc. all might help here!). It is interesting that the stickleback fish appears to "feel" like this ball-attacking behavior is really important. In the larger evolutionary context of this behavior which we can see and transcend only with our larger brains, the attack of the red ping-pong ball seems pretty ridiculous. Certain other very simple organisms (even plants) have a simple attraction (phototropism in plants, phototaxis in protozoa) to light, or sugar concentrations. Organisms perceive according to the niches they occupy in the environment. Their worlds are constructed out of these dedicated perceptions. The stickleback example shows how the world "out there" may really be just the way that their particular brain has been organized—a pattern projected out there that is not complete, or not even necessarily true in the many situations (or contrived environments) it finds itself in. Our human brains are full of coherent, dynamic, physical theories and functions designed for one thing-to ensure our survival, to ensure that we exist. For example, we see only a narrow slice of the electromagnetic spectrum. We know that our brains only allow us to see certain things about the world

related to the furtherance of our existence --in dominance hierarchies, food gathering, work, dating, education, and also based on our motivations or personalities too. Other, lower animals illustrate this well. A bat will never investigate or appreciate a rainbow. Humans have much more potential to see beyond these things than any creature on earth. Even though many of us do not seem to be able to see outside of these evolutionary "boxes", many of us do have the potential. We have a larger brain which may be "pressured" by these lower urges and desires, but we also can form an ideal and a directive to our behaviors which can overcome these things for the benefit of long-term strategies of survival and growth toward the future and knowledge. By intense learning and exercise of our perceptions of self and world, we can see out of the boxes into a much larger world of reality and ideas and possibilities. What a blessing that is.

From the time we are small children, our world teaches us things. We learn about body motion, food, sex, social constraints, etc. All of the things we learn are related to avoiding bad things and bringing the good things into our lives. We are prepared to learn certain things by the limited biology of our brains and bodies. We feel pain and pleasure related to the functioning of our sensory systems. We only see certain colors which then become significant by association. Everything we learn is organized and reduces our anxiety. Once we grow up, we have many things installed in our brains about how the world works-all wired in to pleasure and pain centers. This constitutes basic aspects of our culture, our social milieu. Our anxiety rises if we find ourselves in a situation where these things no longer apply-such as in a different culture where we can experience "culture shock" (Hall, 1981). Even between cultures, there are shared constraints on our perceptions common to all humans-we model the universe we live in with coherent, dynamic theories. We seem to automatically know where a thrown ball will land-a complex prediction based on velocity, gravity, wind, etc. Just like the narrow perceptual spectrum of our visual system, we may be only seeing a slice of reality in general. We see the part that matters for the continuance of our existence. We even share vision capability with the stickleback fish, although most of us do not react in the same way to the color red. Without space and time, we could not exist as we know ourselves-moving forward through a life. All animals operate within space-time and brains reflect this principle. We tend to notice relationships that have something to do with our survival--the relationships that have applications in our lives. In highly verbal mankind, we tend to remember spoken language and patterns more than most things. We have developed abstraction and conceptualization abilities in our brains. We can expand our vision of the world with these abilities. We abstractly construct complex theories about how the world works in our language, but our brains are already complex physical theories about how the world works. The most important stuff is already tooled into our brains. Time and space are there-as something moves across our retina, for example. There is a flow of events in our brains that is a panoramic metronome of reality which gives rise to our sense of time. We know that we

see only a narrow slice of the electromagnetic spectrum, but this works fine for constructing what is necessary for us to exist. This color vision is wired into the biological structure of our bodies. We are seeing the physical manifestation of these theories of our existence when we look at the brain. We might as well be looking at the formulas for our existence. Consciousness translates these brain characteristics into language so that we are able to scrutinize and apply these theories with great precision. We know that we can construct with language (including mathematics) a model of the world we see.

We have expanded our sphere of perception using logic, science, and technology, but this expansion has been more in degree rather than in kind. As an example, the theory of relativity expands the kind of perception of our world rather than the degree. Time and space-a natural, seemingly stable and immutable, invisible, background constituent of all experience to the average brain. is now seen as a relative, flexible, single dimension of "space-time" stuff. Our human brains artificially carved space-time into the separate, background concepts of time and space. When we figured out that light had a certain speed (Roemer, 1675-cited in Asimov, 1962) by carefully observing the moons of Jupiter with an early telescope (which expanded the degree of perception of distant objects), and later with the theory of relativity and quantum mechanics, which depended on this first discovery, we had fundamental changes in our ideas about reality. These changes gave rise to subatomic quantum physicswhich counterintuitively describes and investigates the basic construction of the universe. X-ray astronomy is an excellent example of expanding the degree of perception-along a scale of electromagnetic radiation. In 1896 Vienna, before that, Roentgen had "discovered a way of photographing hidden things, even to the bones within a living, human hand" using x-rays (Romer, 1960, p.15). Other examples of expanded degree and refinement of our perceptions include molecular biology-which expands and refines our view of organisms, and chemistry-a finer and more accurate view of substances in our world systematized into a periodic table. The periodic table itself has proven to be a great tool in predicting the existence of elements that we otherwise would never have known--A sort of a decoder and extrapolator of our vision. Some elements exist only briefly (made in nuclear accelerators, etc.) because they are unstable. We know they exist because we have honed and systematized our knowledge of substances and their interactions. We can even predict what kind of reactivity the elements will have based on their location in the periodic table.

It is easy to see that a bat pays attention to sound in order to find food to a greater degree than we do. The model it uses is smaller, less detailed, less accurate, more directly related to the acquisition of food, but coherent to the bat. By the sphere of its daily behaviors, we can see that the bat lives in a limited, but nonetheless coherent, world. It maintains its own existence well. We must understand that human brains are like this. We live in a limited perceptual world that we see as coherent and internally consistent even though it is incomplete and flawed—just like we do not see the gaps in our vision where the optic nerve courses through the retina, where there are no rods or

cones to react to light. Furthermore, these human limitations may be different in kind than the differences in the perceptions between various animals and us, because we share ancestry (and therefore various aspects of our biology) with all other organisms. Part of this limitation is physical, such as the eye seeing only a certain range of reflected radiations, and other parts are emotional or psychological (from learning potential, or lack of it). People say they have become "different people" as they gain more life experience. We have different "personalities" we assume at different times in our lives-we often act differently at work or at church than we do at home. These environments demand different patterns of interaction. Some humans pathologically develop several complete mutually exclusive personalities, or ways of seeing and interacting, which indicates that these were all "available" somewhere in the brain but were walled off by some process (necessity, fear, hunger, etc.) in our brains. Even human brains have serious limits to a greater or lesser extent, but certainly a bat does not know, or question, what a sun is. It just is, they do not "know" to question it. A bat is locked into one way of surviving. A human can transcend these limits we see in animals. The sun has much less meaning for a bat. We can learn and use this knowledge to transcend the patterns of our own lives we tend to fall into. Humans have a complex language that gives us a definite advantage in our ability to learn and share knowledge. We have developed an ability to move into realms with our thinking which no animal ever entered. We can see other invisible dimensions with our mathematics and concepts which impinge on this world, for example. We can see relationships and meaning in things which have no relevance for the animal world. For the most part, we have honed and fine-tuned our knowledge already begun or perceived incompletely by our natural senses and patterns of behavior. Beyond this, we have also begun to extend our knowledge into wholly unseen theoretical realms of space-time and quantum physics. We have expanded the degree and kinds of perceptions we are able to make of the world around us with our abstract thinking ability-that invisible extension of our brains.

Our brains use flexibility and learning to speed up the evolutionary process toward constructing a more flexible and all-encompassing world niche. This does not mean we are necessarily at the pinnacle of insight and possible perceptions, however. In every age, the sages and scholars think they have discovered the reasons why the world works as it does—from the "gods" of rain or the harvest, phlogiston, spontaneous generation, bodily humors, and the ether, to Newtonian physics. Humans construct patterns in their ideas and words to reflect what appear to be the principles we see in nature. We construct a plausible model from the level of experience we have accumulated, and we use this model like the biological apparatus of a lower organism might be used for that organism to survive. The lower organism contains the knowledge tooled into it by mutation and selection to survive in its niche. All human ideas are creation of a new pattern, new structures of knowledge which allow us to survive better, and are passed on by symbols (words or writing). First there is

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the beginning of the idea. Years ago, "phlogiston" was the word which applied to anything that burned. Later, as all of our knowledge in many areas rose up to create a greater whole, this idea was superceded. Together, we built and forged our knowledge into the shape of reality. We perfected our ideas so that paper or computer calculations in the world of ideas worked just like reality. All ideas are like this-they are evolutionary. At first, they tend to only approximate reality. Things which seem like anomalies in one conceptualization of the world later become key elements in the new paradigm. When our brains notice something across time which is repeated or similar, or when we notice things close together in time repeatedly, we know that this is something with survival relevance. We begin to form an idea or tenet to guide our behavior which takes this information into account. Even some seemingly arbitrary religious constraints on behaviors had important biological bases-the prohibition against eating pork (trichinosis/disease avoidance) for example (Harris, 1974), as sort of the religious "phlogiston" of disease avoidance before the modern conceptualization of disease in medicine. In each age, whether we consider their agriculture, house design, etc, or other parts of their culture, humans had knowledge of how to survive. From our later, more complete perspective, it seems they did not really know what was going on or how the world really worked. Our species advances by building knowledge and this more than anything else is the reason civilizations are so successful. Like the more modern theories of physics derived from the invisible we did not think to question, there are other patterns by which we operate such as meaning and the regular organization of events around consciousness. When something new begins to be seen, it is as if the future is reaching into the past to begin to pull what it needs to exist into being. It is important to realize that all life that now exists does so because it had some characteristic available which was beneficial before it was needed to survive. Selection in evolution works on existing traits. We see the trends and patterns of life and begin to find knowledge before it becomes necessary for our survival. We see how our own brains learn and so have systematized and perfected this internal process in science. Seeing these overall patterns, internal or external, is the most powerful thing we do as a race or species—it marks us as being different more than any spots on a leopard define the leopard.

In every age most people think they are advanced but do not realize how much more there is to learn. They pave over the gaps in knowledge because they do not see them. We have similar gaps in our own knowledge today. We have gaps in our knowledge that seem to be quite large and fundamental. Furthermore, the largest gaps in our own knowledge are brought to light especially by considering the problems of consciousness. For example, the phenomenology of consciousness in relation to the physiological operation and structure of brain tissue just does not make sense. This problem is huge, and points out that there are fundamental processes at work woven through our reality that we have not begun to see until now. Processes that we could not really see until our knowledge in all areas of science—from physics to

introspection—brought us to this shore by indicating the missing knowledge. We must begin to realize that science is powerfully adapted to understanding only one aspect of our internal learning ability—events that repeat or are paired together locally in time and space isolated from other variables. Our brains evolved to see more than this narrow aspect of our reality. We notice symbols and metaphors. We notice qualities to things which are unavailable to science, but which impart meaning to them. We have to realize that wholes are greater, and contain additional information, than the sum of the parts. These parts are hammered out to more perfectly reflect narrow aspects of reality by the process of science. We see meaning in reading a book, which gives us useful information. A story can even be an allegory for something else, but science says this information and this allegory does not exist according to its methods. There is no way for science to begin to consider these things. All of our perceptions and abilities tend to utilize regularities in the world, to allow our brains to unlock or encompass survival-relevant information. Our brains were made to expand into these realms-they are set up for this genetically. We build engines of learning within and without-setting up loops with which to move further ahead. Consciousness, and these aspects of our experience which are so important, indicate that there is a huge realm of missing information out there which can tell us a lot about our world and how it works-just as our internal perceptions of physics were systematized into powerful equations and descriptions of the workings of our world.

The invention of the telescope allowed us to see the nature of light and the construction of the universe, while our microscopes, chemistry, and other technologies allowed us to investigate the workings of brains. Psychology allowed us to better see the origins, tricks, or misapprehensions, built into our behaviors, perceptions and propensities. We are building a more complete knowledge so rapidly now that our knowledge acquired in the last 100 years or so exceeds that acquired in the few thousand years before that. We are exponentially hurtling toward complete knowledge of ourselves, well beyond the narrow confines of our imperfect past knowledge, but there are still plenty of fundamental gaps that we must close. This book is dedicated toward a remedy for this dangerous lack of knowledge. To increase the meaning in everything we see, to increase our consciousness of things toward understanding, meaning, and glory, is the true ultimate aim of science, and also religion. Both of these are only facets or dimensions of inquiry-methodologies aimed eventually at transcendence. For example, Wallace (1996) wrote an excellent discussion of a great Buddhist methodology-an externalization in words of another process that our brains do, just as science is an externalization and systematization of the learning and evolution of our ideas about the world. Buddhism (here focusing on Tibetan Buddhism) offers a set of techniques for training your mind to transcend language and concepts in order to experience the ultimate reality beyond the practical nature of these things. Both hone our minds ability to see reality in different ways. The common theme of science and religion is to transcend our worldly limitations-a new format of life on

earth. A true freedom beyond the limitations lingering in our brains from our evolutionary past. Methods for climbing out of the chasms our brains tend to fall into and onto the mountaintops of vision. Real truth must involve all these things, all available personalities, all segments and slices of reality. Truth is the greatest and most unified whole—the source of meaning. Meaning is unified knowledge. The quality of the universe that allows us to perceive meaning is also part of how the universe works—the structure of it--beyond the details and content of whatever we happen to be learning, on a deeper level.

These are new concepts that are necessary to consider, and to work through, in order to break away from the standard ways of conceptualizing consciousness. Models currently in use are inadequate in many important ways that reflect the tendency to think along well-worn paths. This tendency is selected for in the process of evolution (especially in social groups) and must be removed before we can consider a problem like consciousness. These "thinking paths" become even more rigid and automatic when social standing, power, or money is involved-happening transparently and automatically in our subconscious. Social groups are a complex set of survival niches for the individual, and an ever-present diversion from the path to truth. Our intelligence, language, and imagination are unique tools of the human mind which we can use to expand our awareness and thinking beyond the bounds of our own particular slice of nature--beyond immediate survival. This is one of the great things about being a human. Dinosaurs never progressed beyond their simple, narrow survival pattern--an evolutionary dead end. Ants and Cockroaches are incredibly successful at surviving and have been around for a long time. They are at an evolutionary dead end. Breaking the bounds of thought, breaking the bounds of time by looking into the future and the past, and even breaking the bounds of the earth itself--this is the gift humanity has been given, this is our treasure.

These earthly natural tendencies, or unconscious patterns of thinking, arise from selection pressures in the past which have shaped our biology, and also from our personal and cultural histories (see especially E. T. Hall, (1981); and Carl Sagan & Ann Druyan, (1993) for excellent overviews of these concepts). These three histories (personal, cultural, and species) form the basis of our set of behaviors for getting the things we need from the world. They are three sets of niches developed over time as a result of our interaction with the environment. Our conscious experience is shaped accordingly. There is also a personal, a cultural, and a species unconscious formed by the exigencies and histories of those things. From some higher perspective we can see larger patterns at work in all these things-just as we originally saw order in the fire in objects in the world and named this theoretical substance "phlogiston". There is also a sort of physical world "unconscious", or transparent dimension, beyond the dimensions we normally organize and apprehend with our senses, beyond the space and time we are so familiar with--much like particle physics also exists beyond the matter we see, and has explanatory value. Particle physics used to be part of our "subconscious" in this sense. Newtonian physics

was the same way. The counterintuitive nature of some of these patterns highlights just how far we have progressed beyond all bounds from these three histories, these three areas that have shaped what we are easily prepared to see.

Unlike particle physics, this dimension of unity giving rise to the logos echo is one step farther removed, and not just smaller or more reduced, but paralleling everything. In a way it is at the other end of the scale from the tiny realm of subatomic particle physics-these are larger patterns extending through the macro world like meaning in things from its relation to many other things, or like the theme in a book builds. Themes are the basic unit of this source of information, and they echo across unity and constitute the signs of that unity, and point toward it like plants grow toward the sun. To see it we will have to use our minds in different ways. We must see this other dimension in the meta-patterning of reality-just as we see the forces of the far-off, invisible winds in the wave crashing onto the sands of a beach. The invisible force changes the motion of the water, or sets it in motion, and by this motion we know that there is a force at work beyond this place and time. In the physical world of wind and waves, this force is in the past giving rise to the future. With the logos echo, this force is in the future directing the chance events of the past. Through our science, we have traced these invisible winds and resulting waves not to some "god of the sea", but ultimately to the sun itself-that same source of energy that drives all life and plant growth on Earth, and previously gave rise to all the larger elements that formed that life within its nuclear furnace. By looking at the larger context, we can see more meaning and a more accurate picture. None of the more immediate relationships are the "real" explanation for why there are waves on water, but these immediate explanations are more applicable to our daily lives and the construction of things like sailboats for our own purposes. Truth is not so provincial. Truth is whole, far beyond the immediacy of our lives or purposes. By looking at the larger picture, we see a view not immediately apparent that is a greater truth. The more knowledge we bring together, the more accurate our view (in an unlimited, undivided sense) because everything is ultimately related and has a common origin. At the larger, organized end of things, far from the submicroscopic theoretical minutiae of particle physics, we see the first glimmerings of a direction to things from the eve of this gathering storm of knowledge. This is also a unity, and a great meaning. It is a gathering unity of meaning, rather than the unity of the "bigbang" singularity existing before natural law solidified and gave rise to our physical sciences. Even though it is basically a unity of meaning, it can help us to understand some of the strangeness we see in the subatomic realm. The information available now to us all a result of this timeless force underlying everything. To understand the symbolism of the solar system and the sun to us on Earth is to understand that which most deeply motivates us. We first must acknowledge the limits of our own conscious experience, and understand its origins, before we use this survival-selected phenomenon that is our mind to scrutinize ourselves in the quest for pure truth.

There are three immediate levels of survival niches and boundaries to our world in which our selves, and our consciousness are embedded. These three levels all have one thing in common--they all emphasize or deemphasize certain facets of the world according to rewards or punishments and survival needs. They are constructions of a mind which corral it into certain channels or patterns of activity. The first two levels work through learning and conditioning to emphasize or deemphasize areas or patterns of brain function, and therefore our pattern awareness and the kind of world we see. These patterns are also roughly a function of the temperament and underlying biology which makes them very stable in some cases. They dictate what is conscious and subconscious with the iron fist wrapped in velvet that is our emotions and our set of explanations and rationalizations for behaviors. The third, biology of the brain, carves the world up more directly--as with the narrow visual spectrum we see. Only intellect, technology, and seeing the meta-patterns in these things, can give us clues beyond the biology of the brain, and beyond the "carved-up" perceived world in these patterns. This kind of seeing is the hallmark of humanity-the transcendent vision which allows progress toward truth in our greatest minds. This is the plumage that marks our species—our microscopes and telescopes, our instruments and theories of transcendence. The things which come from the spirit of our most advanced minds to become written across our people-just like the patterns of all reality which come from this advanced law of the universe. This shows that the creator is in our hearts, that we are "chosen" to go forward. The first level of boundaries in the mind is personality. This is like a virtual-reality cave which gives you a sheltered place to live and predictability to your social interactions, but restricts your view of the world. Our tendencies to see things and do things a certain way, to assume a particular social role, and to interpret the behaviors of ourselves and others in certain ways, are the specialties of our niche of personality. The second level of boundaries consists of the patterns of culture, or various sub-cultural concepts. social meanings, and social behavioral patterns. These are also like labyrinthine caves in which we live together. These are our current collective personalities. On the third level, our biological brains' constraints are formed the same way. Our biological brains are a survival cave insulating us from pure truth while at the same time gathering purposive truths for survival, and providing the raw materials upon which the other two levels form. They are the organization of our perceptual system-sound, vision, reflexes, taste, touch, etc. Motivations and drives are powerful-like the invisible radio-collar fencing, or electric fences we use to contain our pets at home. Even when the fence is turned off, the dogs will not go near the boundaries for fear of a shock. Classical conditioning can totally affect what we want, learning can set the boundaries of these powerful fences.

When you are chained in this three-tiered cave, or "editor of consciousness", peering at shadows, it is easy to see what you are prepared to see rather than what may be actual truth. This is a form of blindness. It is easy to project fears and misunderstandings onto the otherwise unintelligible, onto the dark areas.

By acknowledging first that what you see is shadow, you will be able to watch for collections of clues to combine in coherent ways in their own right. As you question and watch the world around you with new vision. understanding builds itself. Like a child developing in a womb. God is a subtle artist. Understanding is an ever-evolving and moving process. Understanding is not conclusions that you can claim, or new ground to plant your flag into. Conclusions are all about immediate survival purposes-a small isolated area of the world we can sit in and live or operate by like an animal in a niche. Reality itself is not conclusions. We must be sensitive to the whole flow of information beyond them. Patterns will form themselves--like a partially completed puzzle indicates where the next pieces go, and these indicate still more places for more pieces to go. Conclusions are the mules we must entice into motion to operate the gold mine, the whole engine of truth. We must recognize patterns in the picture puzzle, but in life the puzzle is three dimensional, and in constant motion in time and space. Understanding truth is more a quality of how you combine and mobilize your knowledge--how you set vour mind in motion.

Nothing new ever has an easy introduction or explanation. It must first be laboriously worked into the old views. Given the volumes and complexity of modern knowledge, this task will be harder than ever before in history. This is the paradox of the modern increase in knowledge that scientists must take into account. Vast knowledge more easily creates an occlusive world view. Vast walls are harder to scale and see beyond. You also have to get past many people who will fight you with a much more cohesive and complex blind paradigm in which they can fearfully hide and fight like badgers in complex holes. Like mobile soldiers on top of the Great Wall. Merely having a new theory tested, or even getting anyone to consider a totally new view on things could easily become a life's work with a low probability of success. Simply trying to find an avenue in the modern complex society in which to do something totally new is extremely difficult. It is easy to see now why Plato thought the written language would be the end of thinking.

The study of how our brain tissue gives rise to consciousness is the most enigmatic problem ever to arise in mankind's quest for knowledge. This is true because we have a "strange" point of view when looking at the brain which evolution has not prepared us for. The "strangeness" arises when exposed brain tissue is made an element of the outer environment to be interpreted by the brain of an observing scientist. From the inside, brain tissue takes a perfectly logical and recognizable form to us--the organization, makeup and meaning of the outside world that we know and experience. That is how we see the brain from inside. This is actually your brain's interpretation of and animation of the universe seen from within. Further, the entire world that we are prepared to see or operate within is related to (and quite literally colored by) survival contingencies. They become a part of what we see—we see a car as a means to get to work or the store, we see clothes or haircuts as ways to be more successful with the opposite sex. We see baby animals and they elicit our own

powerful parental urges. These are especially strong in humans that have large parental-investment strategies, and long childhood dependencies. These are the kinds of reactions which are only our motivations laid over things, projected onto things--getting in the way of seeing naked truth. The observing scientist effectively makes brain tissue an element of this outer environment in studying it in a laboratory setting. His brain uses the sensory equipment which evolved strictly to interpret the outer environment as a way to interpret the internal structure of the interpreter itself. I think you can see the obvious paradox and the pitfall of this situation.

The patterns and meaning of exposed brain tissue have no such survival contingencies for us, as a dissected, separate element of our perceived environment. Probably none of our ancestors died because they could not understand brain tissue. Even our highly intelligent Greek forebears (Aristotle) thought the brain served to "cool the blood" because of its convoluted surface. Unlike most things we perceive, there was never any selection pressure for animals to understand the biochemical, physical function of brain tissue. It was built in the dark based on principles that were not necessary to be aware of to benefit from or survive with. We see this in the patterns of unaware "knowledge" of all life forms--from a virus up through bee colonies, 3,600 mile-long ant cooperatives, and in human behavior and societies. Consequently, our complex brain tissue is a ready "Rorschac"-style ink blot for projection of concepts we do happen to know like electronics or computer theories, or Descarte's hydraulic theories of brain and muscle action. At the time of Descarte's theorizing, hydraulically-powered animated figures were popular in the royal court. The larger principles of operation of the "outer world" may actually be a superior source of knowledge and clues to brain functions when peering at enigmatic brain tissue, since the outer world is our brain to an extent. In other words, physics can tell us much about the brain too. Archaeology and linguistics can be more easily seen as relating to brain functioning, as can biology. It is important to remember that themes we know in the entire world and universe are also a function in our brains which developed over billions of years. Why, where, and what is this relationship? This is an extremely important set of questions. Given that it is not necessary to be aware of brain principles to benefit from them, what is the purpose of consciousness? To transcend these principles and be creative. To predict the future and anticipate obstacles. To unify knowledge toward a point. To be the evolutionary force of life come alive in us.

Especially in the last hundred years, we have used various scientific instruments to extend our consciousness into realms beyond our sensory capacities (such as quantum physics, or the complete electromagnetic spectrum). This outer self-knowledge, or quest for extended consciousness, is the source of our greatest scientific advances and our civilization. Language is a shadow of our purposes and view of things. In other words, language is a shadow of our brains. Brains are a shadow of our environment and our history in this environment. We are so intimately involved with the first shadow, that it

is necessary to use language as a tool to bring some things about our viewpoints to a place in front of us where we can see them easily. Language helps build understanding like a scaffold helps to build buildings that make a city, but it is important to remember that true understanding exists apart from language. Brittle, linear words cannot stick to, or move exactly like the mobile engine of reality. If we stare only at the words, we miss the living meaning behind them. Words are there not for themselves, but to indicate something else. Language can be a device of social competition and politics at one extreme and of discovery and understanding at the other. A prison and a living death, or a womb and a tool--a source of knowledge and a means to true life.

Speech and words as representational systems are an excellent starting point in understanding the problems of consciousness. At the most basic level, language directs consciousness. Look at your hand, for instance. Or read a word such as gold, marble, tiger, or forest. Language descriptions of experience indicate that consciousness is or was present --much like an old path through the woods indicates where people have gone before. Language provides corridors for the growth and development of consciousness. Other people direct their consciousness according to your words when you explain something to them. We shape each others consciousness like potters shape clay on a wheel into flowerpots or water jars. Words and culture are the shaping tools, our lives are the wheel. This follows from the idea that language developed (was selected for) as a way of coordinating behaviors and hierarchies in diverse people to form cohesive and cooperative groups. Language is used to share knowledge between generations--to be the "ringmaster" of consciousness.

During childhood, the direction and structuring of consciousness is especially important for survival. We learn to recognize meaning in things according to needs and the direction of those around us. Later, we tend not to notice things that do not have meaning for us. At first, it must be fearful for a child seeing all these things that seem like chaos, which later will become understandable. Fearfulness and helplessness becomes associated with the unknown. Similarly, the early universe arose from a chaos of infinite possibility, and then direction in the form of solidified natural laws gave it a lasting existence. Eventually, we can return to that place of infinite possibility beyond the paths we have created by learning and the demands of evolution. We return with order gained from experiences across time, so that we can stand alone in that chaos of infinite possibility again without fear, with a reference point by which to create. Language serves this purpose ultimately. In chapter 5 I talk about the logos echo language quality of the universe itself. There is no overestimating the importance of concepts of language in the study of consciousness. All language is either description and direction of or manipulation of consciousness. Why does this language manipulation of consciousness work? Is language a unique phenomenon in the world, unattached and unrelated? It does not look like anything in the world (the word "tree" does not look like a tree for example). If language was a unique phenomena unrelated to the world, it would be useless to us. A computer screen

with words on it is useless and meaningless without a human brain to read it, to provide meaning. Language must be an echo of other larger patterns of meaning in nature and thus, our brains and minds. A shadow of our minds. A "tinkertoy" ghost of lines and angles nested in other realities that triggers the meanings of reality by which we share experiences. Language is an invisible, sparse virtual reality for specialization and coordination of behavior. A tool. The fact that language resides in the brain and mimics\symbolizes the world to a rarefied extent should give huge clues to the brain functions which are unrelated to this language like the experience of consciousness and meaning. There is a key to solving the brain-mind problem here. Language is like an inferior, fearful, social mind within a mind. The relationship of our language to our brain is a great model for understanding the other relationship of the inferior human brain to the universe of reality. Consciousness seems a part of all three, the life of language, brain, and universe. Language is an externalization and map to the workings of brains by its very structure. This has a lot of information about who we are and what is important to us in it. Brains, in the same way, are maps to the workings of the universe.

Language works like the world we live in, but it is shaped by and mixed with the survival purposes and needs of mankind. Inuit Indians use many words to describe the different kinds of what we simply call "snow", for example because of the snowy environment they mostly live in. If you write a definition of any word, you will find that the words that make up the meaning of the word you seek to define represent actual object and action relationships in the world of our consciousness. The meaning and structure of the outside human world is preserved in language. This is especially true if purpose is a part of the definition. Some things that do not have a survival value are not described or attended to. Some ideas or truths had a very strong survival reason to be ignored in our less civilized pasts. Verbal interaction and language structure also carves valleys for our stream of consciousness to flow down. Language is a model of the structure of our consciousness. Language is like a road map of the purpose and structure of human brains which are themselves a natural model and tool to navigate in the world according to our purposes. All we hear, see, feel, and describe, seems to be the working of our brains. An ant hill is vaguely like a human society in form or pattern. By analogy, language is like the brain in overall abstract ways. In the same way, the function of the brain is like the physical world. Only the brain has had a much longer time to be honed and shaped to parallel the physical world than language has to reflect the brain. It is hard to draw the line in the history of this universe where we can say that the brain was not forming. Our brains began when the universe began. Our brains are made out of matter and molecules originating in the big bang, and shaped in stars and on this planet. That is a very long time. Language resides in and is a subset of brains. Our spoken and written language is recent. Language is our tool. Language is not conscious, but facilitates consciousness when we use it to share diverse experiences and knowledge.

Many things in reality are more than one thing at the same time. Overall themes and repeating themes are poorly represented by language. We either talk about an ant hill or we talk about human society. The echo of forms of organization is left out of specific and divisive language which tends to be directed towards our immediate purposes. Language tends to parcel out and divide up our world. Language is spotty and sporadic in portraying the smooth Echoing sequences of intricately interconnected events that is reality. Consciousness needs to narrow to a focus to be packed into a word. A picture is worth a thousand words because it has instantaneous, complex meaning. Reality is a continuous infinite moving picture. As soon as you begin to speak, the ever-changing picture is already new-far beyond the ability of our human oral speech to keep up. Language removes the dynamics and the overall patterns. In the same way that words divide up the consciousness and reality of a brain, even our superior brains use senses that divide up the world into fields of vision and slices of the electromagnetic spectrum. Perhaps the brain needs the dimension of space-time to exist, certainly the universe does, like words need paper. In any event, our brains and bodies are physically limited--with built-in tendencies to highlight only small segments of reality at any one time in our consciousness. Thinking and intelligence over time can overcome these limitations. We were eventually meant to read the universe-that's what minds do. The limiting control of the dark subconscious may be eliminated once we are aware of it. Awareness is the potential for change and creativity.

We understand the present because our brains, in every sense, are engineered by evolution and selection to transcend time. All meaning is time transcendence--our memories, our biological purposes (shaped drives), and even our senses tell us about events that are separated from us in time and space. Even light entering the eye tells us of things in the future that we can move toward. We tend to be motivated by similarities (things close together in concept or meaning), and things associated in time or space. Our brains are set up to remember things occurring close together in time. We automatically connect them. Or perhaps it is just easier to do this, because this is the most common and immediately survival-relevant kind of event. It is much more difficult to connect widely separated events. Time and space seem to be obstacles to consciousness, memory, and meaning--this may be an important clue to how the brain works-it must transcend these things. We also are good at recognizing "similar" things--the echo of forms is an excellent means of recognizing connections between things widely separated in time and space. Perhaps this is because our brains are made out of the same stuff as the universe--operating under the same principles as the universe. Time seems to truly be the difference between heaven and earth. The more timeless we are, the more meaning we have. We transcend time to get all meaning. A moment is so complex, that it is a testament to the awesome capacity of a human mind that we can connect over time countless lines of thought and histories. Time and space are the mountain we scale to God in our minds. We must become living oceans of timeless meaning, with our moments and senses as centers/nexus to

anchor it down, to see a complete reality. But how can there be a connection between things separated in time and space? Time and space give us the illusion of separateness. It is of immense explanatory value, for both the science of physics and brain science, to assume that there is another timeless dimension in which the universe exists. A dimension beyond the constraints of time and space which were built into brains by the need to exist, to survive. A unity not spread apart by time and space. Without time and space there is only one thing. Infinity in a grain of sand. All things are one thing. The beginning and end of the universe.

The division of mathematics known as fractal geometry (see Gleick, 1987 for an excellent overview of these ideas) seems reminiscent of the three-way language/brain/universe "nested analogy" in an idealized way. As we zoom into or out of a nested set of fractal patterns, we see echoes, or repeating patterns, at definite points i.e.--like universe patterns, brain patterns, language patterns, or the repeating nested contours of a fractal shoreline. It is no accident that forms are repeated. They are ripples in the same pond with the same origin. So the main idea here is that there is an echo of meaning structures. More importantly, there is also an echo of meaningful structure within each of these language, brain, universe levels (for example, think of the nature of analogy/metaphor, individual development recapitulating species development, or solar system, galaxy system, big-bang universe patterns-all around centers) as well as between these levels. Meanings within meanings-which echo on many levels. I will call this the "Logos echo" and discuss it more fully in a later chapter, but it is important to talk about here as a way of seeing a larger pattern than we normally see for our more immediate evolutionary purposes. Also, it is evidence for a quality of the universe that must involve a greater level of what we see as consciousness in us. This "Logos echo" is a primary source of numinous experience (the feelings evoked by divine or holy presence). The logos echo works more or less for all kinds of concepts we like to use as analogy or metaphor in language, like father, sun, sea, womb, anthill, etc. Religious writings and rituals evoke numinous experiences because they are metaphorical. To climb a mountain evokes numinous experience because in that pattern is embedded an echo of the entire process and pattern of the advance of life. Analogy and metaphor in our language are a real quality of the universe. These are echoes of larger meaning and pattern that give reality a kind of transcendent coherence that is a genuine source of information about our selves and our world. This logos echo effect is the reason for mankind's reverence of symbols--such as the triangle, and its attendant equations, which were at one time thought to be holy, or the "manitous" of objects or things in the world the Indians saw around them. Symbols organize lots of information into points like consciousness does. They are evidence for consciousness. But a triangle is just one piece of a rather large puzzle. It is a reminder of the big picture which is echoed in its microcosm. All meaning comes from overall relationships-nonverbal relationships. In the grand scheme, everything is just as hauntingly interrelated and beautiful\meaningful if we could understand the

relationships. Lower forms of life do not see beauty in art or have religions. They cannot see the echoing, nested loops of reality. Why do we wonder at timeless rock formations? The Grand Canyon, a natural bridge, a cave? In an instant, by looking at a canyon, we are awed by a sense of immense time and immense forces working beyond our present moment in space-time. By bringing lots of information and experience to bear, we can read the meaning of the canyon. We can also do this looking at life with our accumulated information in modern science. Because it is like a memory of and testament to the thoughts of God, physical structures containing the history of natural processes, but also the meaning of the natural metaphor. Evidence of larger meanings, analogy, metaphor, and echoing patterns are evidence of the unity of the universe, a source of meaning like consciousness. Evidence of truth. Evidence of the larger unity of which our consciousness is an echo. In an analogy, when we say X is like Y and another person can see that relationship, they just know it--as if we knew there was an accepted unity in the universe. It transfers automatically. As if we know intuitively the mind and personality of God the creator. Actually we do know the creator. Brains are like the universe. When we see how the universe operates, even though our "input pipes" are constricted by a number of factors mentioned earlier, we also see how a fully functioning brain works.

This logos echo effect is an unknown principle built into the universe--one of the most basic. One that allows our brains to work as they do. An echo of forms. Brains echo the universe in the ideal state. The brain seems to recruit the same areas and structures over and over in various combinations in the building of our experiences-such as the areas in the temporal lobes which seem to operate consistently during certain classes or categories of perception. Some areas respond only, and always, to a certain color, for example. Our brains naturally adapted to this quality of the universe which enables it to be represented in a small space via various combinations of distilled principles. Echo of forms is memory (unity) of the universe effecting patterns within it like a stable personality characteristic effects everything you do and perceive. It does this even in totally (scientifically) unrelated situations. I like the symbol of a spiral for this logos-echo concept--lines going around a center that seem unconnected, though parallel, until you take the most transcendent view and finally see that there is a hypnotic oneness to it. It turns out to be one thing with one origin. One line. One center. Your personality is the description we give to what unifies and connects two echoing behaviors-the pattern of our behaviors. You can understand a person's personality by connecting their behavior patterns over time. We can form an idea of what the world must be like to them, what their experience of it must be like. Our brain memories unify our lives. The tiny slice of life we see at any one time, the tiny pipe through which we suck up knowledge of the universe, is like a paint brush in the hand of God working in our brains. Like a spaceship to another galaxy must first be built piece by piece in orbit close to earth, or a Taj Mahal must be built block by block, so it is with the searchlight of our conscious experience. An umbilical

cord to Gods creation, From which we are born into heaven to be with God. This is a natural process of our mental or "cognitive" development. We learn from and eventually read the universe itself. I will cover the intriguing implications of this pattern in more detail in a later chapter.

The reason language has trouble expressing this "logos echo", among other things, is that language is simple, static, and divisive, it is a symbol of a symbol. It is used for social control and as an interpersonal weapon and device of competition in every day society. There is a practical application, practical use, and immediate purpose to every thing we can experience or do, but then there is also a whole other world of its true meaning and purpose in the grand scheme which is all about mobile contexts over time. Language is no different. Every single thing existing has these two aspects to it. Language is at best a framework of a framework of something greater. The formula, God> universe : brain> language, is the hierarchical relationship. Language is conceptually like Pinocchio and we are its source of life. This relationship holds for our universe and the unifying principle there which we have always called "God" as well. Life gives meaning and yet the universe also has instantaneous relationships and a sort of memory much like our consciousness and its meaning. So life and universe share something that language does not have. Meaning is the unseen relationships between words only existing in us-in our consciousness. There are unseen relationships in the universe that have meaning too, which we can aspire to know by learning, but were real and already there. How do these exist, if not by a similar device behind the universe like our own consciousness? Language seems to have meaning because it shares so much with the patterning and meaning of the actual world reflected in our brains, but we must remember that it was first formed for survival. It is a niche, a cave. Creativity is divine--it transcends and breaks such barriers both metaphorically in the descriptions of classical biblical miracles and in the talented human artist who understands well the elements of an artful media composition and how they work together to make meaning. Meaning is the key to the similarity between mind and the world of matter. An echo between the two not shared by language alone. Language only has meaning because it triggers the natural meaning structures of the brain normally (originally) used to apprehend the universe apart from words.

Language is shadow to brain meaning and brain meaning would therefore be shadow to reality in its raw form (except for the mobile interrelatedness that intrinsically exists only for the latter two--brain and reality). For example, as mentioned earlier, one author points out that time passing by might just be an illusion created by brains out of a vast static tapestry of space-time (John Gribbin, 1995). In this, we can see how our own brains might be shadow, not actual reality. Our theory of what our parent universe is like combined with our need to develop and continue to exist. Something is lost in the translation. Or was lost—until we could gather enough information together in the modern information society to begin to see glimpses of this actual reality, to begin to question our own consciousness itself. Language is like a soulless monster

mankind created with the first mark on a clay tablet, and growing to the present day, which can take us over to use and atrophy our souls, like a twisted Pinocchio enslaving the living with lies and short-sighted temptations. Like the movie Westworld, where robots begin killing off the humans that created them. Perhaps this is why God, or whatever we feel as a greater force in the universe is so inexpressible in language. Or so absent in the selfish and narrow survival purposes of mankind. Like any technology, language has pitfalls and benefits. Language is powerful, and also presents us with powerful dangers. It is a potential niche we can fall into that we must transcend. Lies destroy the path of truth unique to humankind in Western civilization by driving us off the path diverting and diffusing our energies. Misinformation, or narrowly focused views of the world, can become normal ways of viewing the world if we do not know how to think beyond them, and if we do not realize the singular nature of the path to truth. It is part of the danger (along with the benefits) of the modern information environment. The danger comes from the possibility to be shaped only by language and not see the reality behind it anymore. Into this realm, those without the truth in their hearts can grow and prosper by using language as levers and tools to gain resources and manipulate others for selfish reasonswhile our roots, and our thinking ability, can become increasingly vestigial or even detrimental to individual survival in a new detached environment of symbols which are beholden to animal politics without higher motivations. As in any environment life has found itself in, there are dangers which in our human environment, are much more conceptual and abstract than for any other creature. The battle of evolution takes place within us, across the span of single lives. The best we can hope for is to collect enough clues from these shadows of brain and language to know the true nature of things. Reap the information toward life, truth, and the future. To keep the shadow under our control rather than the other way around, which is destruction. In order to understand the relationship of brains to universe we must free our minds from the constraints of language and social pressure. We must accept that there are other dimensions which we find relatively incomprehensible in our daily lives and their immediate survival exigencies--especially given the evidence from the patterns of consciousness, meaning, and the echo of forms. Dimensions beyond language, biology, and time. Simple extrapolation from the known, based on the logos echo alone indicates this.

All advance of knowledge is first understood in terms of other similar phenomena which are already known (see especially A. R. Luria, 1982). New knowledge needs to be tied into existing concepts--into existing meaning structure. To learn and understand life is to climb a stepwise pyramid or ladder to "heaven" in a manner of speaking. Immanuel Kant said that things only have meaning insofar as they relate to knowledge already possessed, but it doesn't take a philosopher's words for us to understand immediately that this is true. When we see this overall pattern, instead of just following it, we can then realize we are approaching the destination. We have arrived on the peak where we can look out upon the path of all life. The point here is that learning

transcends automatically-and we achieve a beautiful view in the world of abstract concepts. A gorgeous, panoramic view of a larger world will be seen as a result of the strenuous, treacherous climb. At some critical point (a point we are reaching now), we will have enough knowledge to understand everything in the universe in a holistic way rooted in this ancient path of life and knowledge. There is vast new knowledge here—emerging from the overall meaning in the knowledge we already possess. This new knowledge must be tied in to existing concepts, and arises from qualities within these concepts. The newer the knowledge, the harder this task becomes-making it harder to progress toward truth. We will need to upgrade our minds with genetic technology to keep up in the future. Consciousness suggests a dimension beyond neurons and their processing and thereby underlines a similar relationship of unity to the physical processes of the universe. In this pattern, taken together with other information, we can see the overall pattern (covered in this book) which shows that these things must be true, and also shows that there is a unified directing force to the universe beyond our evolutionarily limited world view. This is the ultimate transcendence based on the mechanics of meaning, rather than quantum mechanics. Most likely, the ultimate theory of everything in quantum physics and in the higher realm of meaning is the same—comes from the same root. We should actually find a connection between the highest patterns of information in meaning and the smallest patterns of matter beyond the quantum. That is one major prediction of this theory, among many, if you happen to be a scientist reading this. More on these matters will be discussed in a later chapter (see especially the diamond diagram in chapter 6, and I have also devised a new methodology which can show some of these relationships in chapter 4.

A good example of the type of meaning which exists for both brain tissue and for language is the cognitive concept of radial categories (see Lakoff, 1987, chapter 6). This linguistic concept is the most useful I have found to use as an analogy of conscious meaning and reality. When we define a tree in the spirit of radial categories, many words and concepts branch off radially from this central node word: Houses, paper, birds, nests, apples, climbing, campfires, and Christmas ornaments are all related to "tree" for example. Each one of these component concepts also has a similar radial meaning structure. All these things, all these relationships, work together to create meaning. So if we made a three dimensional model of this, we would have a well-interconnected web structure which is a model of the relatedness of things. Remove the dimension of space and time and you have a profound and meaningful oneness--picture all radial categories overlaid like stacking transparencies on an overhead projector. The brain is structured in a similar way in that there are neurons with nuclei that branch out and connect with many other neurons. Meanings are built there and effect the functioning in neural loops. The universe also has gravity, (like words have "gravity", i.e. the pull of central meaning, or a neuron has influence in brain function) electromagnetic radiation, space-time "fabric", and the relationships of Newtonian physics giving meaning and relatedness to things. The primary problem is that conscious meaning takes place all at once-- just as

the universe exists all at once or as natural laws exist the same everywhere at once. This idea of meaning (an instant unity) is important to physics because similar molecules exhibit similar chemistry because they are actually one beyond the space-time that separates them. An ultimate particle may therefore be elusive because at the most basic level there is only one—that particle is utterly one--in that sense it shares a lot with, and externally symbolizes, our ideas of ultimate meaning.

This parallels an interpretation of Einstein's "spooky action at a distance" problem with quantum physics phenomena--explained by waves traveling through time that are instantaneous to us with our evolutionarily-dictated world view. Information in the brain is discretely packaged and slow according to computer analogy/neuron theories. The problem is that there is no such compartmentalization or separation in time of elements that make up an actual meaning structure. Gravity is like the memory of the former oneness of the universe. As if matter "knows" it is one and the same and "wants" to get back together. The denser the matter, the closer it gets, probably, to the dimension beyond space-time from which it originated. A sun is a ball of flux of molecules-they are being split and pasted together on an immense scale in the fission and fusion storm which powers the sun. This flux of energy and elements is like a partial regression towards oneness to the time of energetic flux just after the big bang. Meaning is the same way in minds. It happens all at once and changes like a kaleidoscope as we add or remove elements. At some point there is a phase change of meaning where the weight of knowledge and learning becomes like the sun in that it informs and advances itself exponentially to actually become that transcendent thing which drove life incarnate. This is part of the basis for many of our religious concepts that I talk about later. Separation or compartmentalization only comes when we take time to describe or investigate meanings. How can it be possible for a nerve impulse to make meaning? Something more must logically be at work. Some other dimension. This is so obvious a flaw in our current brain theories that it is difficult to understand how we could be so blind. It is exactly like saying 2+2=3. That model does not fit reality. Just because we can construct a model, does not mean it is reality. We have lots of information in the case of 2+2=3which immediately allows us to see that this is inaccurate. If you have a lot of knowledge from diverse areas of modern inquiry, instead of simply operating within the confines of a narrow specialty, it is equally apparent that the neuron doctrine is shockingly wrong for a theory with such a wide general acceptance. Language is a shadow of the reality of our biology just as our biology is a shadow of unknown physical reality. The possibility of other dimensions beyond time or the connectivity of things cannot be ruled out. In fact, this seems to be the best answer to a number of scientific problems in brain science and physics. The problem is how can we get at this realm experimentally, or if not that, can we gather enough information to support such a theory? As I have already shown and said here, that is a big yes. We will need to attend to enough diverse information to allow us to transcend the evolutionarily-limited world

view we normally operate within. We will also need to be able to transcend the pitfalls and limits of the very tools we use to gather knowledge—from language to science itself—just as we need to transcend the dangers in our technologies in order to squeeze a future out of their benefits. We need to get past nuclear weapons in order to have a future in our greater knowledge of the atom, for example. All our technologies are like that, language is like that, all life is like that.

From the reach and effects of gravity or electromagnetic radiation, to the chemical communication of microbes, ants, and skunks, and finally to the books, speeches, and mathematics of man, it seems that language is a natural law of the universe. You can see communicated evidence in various instances that represent distant or absent objects. That is the nature of symbolsomething with motivational significance-the "spirit" borrowed from the future through the echo of forms containing the features of that which naturally motivates us. We can make internal symbols in our imagination too-we can imagine traveling to a far off land and then go there, for example, partially by acting according to how we imagine we should do it from the information we have. That is how we predict things through time too-one thing leads to, or "symbolizes", another. In order for us to exist, the universe must have spacetime, and it must work like this. Language, in this way, IS the universe. The future must be inherent in the information of the present, forms must echo and be interrelated in meaningful ways, and we need to be able to learn to see that our future is written all around us in a much larger sense than we ever thought before. The information of language is a spread of, and a network of, influence in people or the specific interactions of matter and energy. Try to look at a word, but not read it, if you are skeptical that our language is like the inexorable effects of gravity or nature in many ways. In the same way that gravity absolutely exists, and influences, so do words have gravity in that they are the evidence of and influence of consciousness. Words modulate and describe brain patterns. They have the influence and impact of reality, but they are not reality. They are only a beguiling map of it which is best used like reality itself, when the words follow the whole patterns of reality-to climb the mountain of information in our lives to greater levels of truth and meaning to the ultimate summit whose power is echoed in the idea of a "grand unifying theory" of physics. Humans give words meaning and life, just as that factor which we call "God" is conceived to give humans, and the universe, meaning and life. They are one and the same. Life has a singular path, but mirrors this path in many ways on many different levels. The message written across the patterns of nature more than any other is that knowledge equals life.

Thousands of years ago, this natural language aspect of the universe was revered highly--if not directly described. Back in the distant past, we thought secretly (unaware) in terms of these natural symbols—just as our bodies and minds work according to principles regardless of whether we are aware of these principles or not. You can even see it clearly in the shapes and behaviors of the animals in peacock feathers, manes, antlers, etc. Animals find these things

motivationally-relevant symbols. Animals may not be aware of the true overall meaning of these symbols that affect them, but humans are becoming capable of it now. Is it any wonder that the earliest name for "the one God" of monotheism was called logos the divine writing or reason of the universe? This one perception or hint of ultimate truth forms the basis for the path of Western civilization with its science, knowledge, and industry. One thing we can assert with a certainty is that our brains and all their apparently enigmatic and esoteric functions are a regular reflection of the workings of this universe in the same way that we know any planet and its mass warps space-time in a predictable fashion. It must be true. Brains are an echo of the universe in motion, and written into them is the future of what motivates the universe itself. There is no function or process of nature we know that is not also represented by the functions of or the language of the brain. Brain and consciousness are descendant from the universe-the ultimate "holy" symbol of it. Just like a symmetrical inanimate snowflake grows reflecting principles and regularities of its constituent parts and their natural laws, so has the brain arisen in an enormously more complex fashion. Brains have the unique function of being the souls and life of the universe we live in. They symbolize, and are also quite literally containing the spirit of the life and creator of the universe in a scientific, analytical sense. They are the ultimate nexus and meaning machine of the language of reality. In fact, the language of the universe is all that we ever see. From the light that enters our eyes, to the sound in our ears, we are dependant on the representation of things in the reflected energy of the universe. All is a form of language. Meaning is human. Meaning is unique. Meaning is the secret that breathes life into languages. Meaning is unity. Meaning is timeless. Meaning must come from beyond space-time, because space-time is the splitting apart, the defining referent and forum for the will of unity to reflect and be reflected in. Meaning comes when many facets or aspects of a thing are bound into one. The unity of ultimate truth, the unity of consciousness, the unity of the universe, are all the ultimate meaning. Unity, arising in another dimension beyond space-time or transcending time, is the ultimate law of the universe that allows existence. The universe seems to be headed to a rendezvous with the creator in that we will learn intimately from our accumulated knowledge the "meaning and thoughts" which gave rise to the universe and so become one with these things. As the unity of our minds transcends the physical realm of brains in consciousness, our knowledge is the vehicle by which we transcend the physical universe.

Of course, a definition of consciousness is the first thing that must be attempted when considering the problem of consciousness. The process of narrowing down and sorting out a definition automatically points to various problems and drives thinking forward on the subject. The term "life" has a similar effect in the field of biology if a definition is sought. So does "matter" in physics. We seek the root the patterns of our conscious symbols perfectly into the actual patterns of the universe to give them more power, more life, more "spirit". The universe is doing this now to US. Our phenomenally

increased knowledge and consciousness today is the result. The universe does this to us by instilling an overriding motivation to knowledge. Part of this is the perception of the symbols of that path by us. Great poetry, therefore, has a certain amount of life or "spirit" in it-as does the Pythagorean theorem. We are inordinately motivated by these things beyond their practical uses in and of themselves. The Pythagoreans were mystics, for example. Religion always seeks to define this larger path, which only now are we able to fill out in much more perfect detail here—by reading the book which transcends the writings and symbols of all religions, the living book of the universe. Definitions of consciousness are much more difficult to form because consciousness varies from person to person in its character. Obviously, people are not always motivated by pure truth. We always seem to mistake the contents, or the referents of consciousness, for the pure distillation of the process of it. We have an echo here of the larger "false idol" problem of religions, in that consciousness must be defined apart from what it is conscious of. One reason for this is that consciousness is intimately related to personality, and specialization of brain function for survival. Consciousness can be much more narrow and focused-as we see all across the animal kingdom. As a result, it seems as though there are as many definitions of consciousness at times as there are people investigating the concept. This is not true in actuality (a sort of blind men and the elephant pattern again here). Personality is a sort of motivation-animated set of likelihoods of what will be perceived and how you will respond in diverse situations. When our symbols become a detached environment, we can be pushed off the path of life and selected by things other than truth. We can be well meaning, focusing on the right symbols, but lose sight of the larger patterns which originally informed them. In crossing a bridge, you take the risk of falling. In this way too, personality is like distorting glasses formed early on that are extremely difficult to remove. Animals never remove them under pain of death. Learning is everything. Truth does not involve personality or specialization for mere survival. Learning about these things via the theory of evolution paves the way for us to transcend these difficult barriers. These are barriers to becoming one with truth-the overall goal of all life, despite the many backslides, crosscurrents, and eddies along the way. Consciousness is the utilization of the unity behind the universe in order to unify our knowledge and become aware of our referent universe for creativity and overcoming obstacles to existence. It is the life force come into our brains and our intimate knowledge of the origin of the universe. It is the future come home to roost in the infinite possibilities and creativity of our accumulated knowledge in our genes, in our civilization, and in our minds. The best working definition for our purposes here seems to be that consciousness is the time-transcending unity to our experiences which allows meaning and existence. It is the inner experience of the force of life and the future goal of life. It provides a connecting point for creativity to occur. It is the point where knowledge can get together to find possibilities and hurl down boundaries. It is the point in the moment which unites past and future, it is the beyond-time or

timeless "leaking" into the space-time of our lives to infuse it with the same power which called us into being. It is the point that is connected to every other point in our lives and provides the continuity. It is where we select out the possibilities we carry out into the future. We learn transcendent patterns there, we consolidate new information there, and we read the meaning of things for the future there. It is the center of gravity around which our lives revolve that allows us to exist.

The science of consciousness is further complicated because we do not have tools or viewpoints readily available to apply to the study of brain tissue. The brain is a few inches across, but it is more complex than anything known to mankind. Our point of view when peering into the brain can not show us the vast panoramas that are encompassed by its operation. All of the tools we use for science were developed in the vast spaces and with the vast resources of the external environment. It is very difficult to measure and interpret the microcathedral of brain tissue with our gross instruments. For a science such as Physics, we have all our senses and huge nuclear accelerators to assist us. Astronomers build huge telescopes to enhance their visualization of the electromagnetic radiation of the universe (light, radio, other radiation). Our senses are well adapted for viewing the outside world. Furthermore, the brain has complex holistic aspects that we may never be able to completely monitor accurately-like the weather or other complex multidetermined systems. The brain is the most complete "logos echo" of the universe that we have. There are many echoes of forms in the world which point to its origin, but the brain is the echo of all creation, and the most perfect reflection of it. As an "idol" of this larger pattern, it is the best we have.

In order to monitor the brain completely, to know everything or even a large percentage of what is happening, seems impossible. EEG's can monitor overall electrical activity profiles, but are not very specific. PET scan techniques show areas of glucose metabolism, but there is no specific resolution again. Additionally, electrical patterns and glucose metabolism do not tell us how consciousness is formed, but rather tell us how aggregates of cells utilize glucose during behavioral acts. We do not know which areas of the brain consist of necessary inhibitory activity or excitatory activity, for example--we just see activity. These and many other techniques, and their interpretation, are also heavily based on the idea of electrical transmission of "information" which is logically impossible as a basis for consciousness, or meaning. Consciousness involves transcending the dimension of space-time. Time may not exist in some sense for consciousness and life to exist. I propose that glial cells seem to fit the placement and pattern necessary to be this "beyond time", beyond the neurons, organizing factor discussed at length in chapter 3. This would handily solve the problem of "simultaneous meaning" necessary for unitary consciousness. This would allow the coordination of function across brain areas that matches the introspective events coordinating with consciousness via the unity of the universe covered in the methodology introduced in chapter 4. There is a certain creative force to the transcendence of space and time we see in consciousness.

We see this force in our creative adaptations and in the selection of events for the continuance of life's journey toward knowledge. The existence of the universe and life itself depends on the outcome of too many probabilities to entertain the idea that it happened by "chance". The meaning in things shows us otherwise, as does the whole pattern. Chance is not an explanation—it is a word like "phlogiston". In these chapters we will begin to move away from that vague idea.

As you drive your car, there are certain things that your attention is more likely to be focused on--traffic signals and other vehicles for example. Consciousness involves attention to things in your environment according to a future purpose, or attention to aspects of memory involved in making decisions. Consciousness seems to be most apparent when making a decision, or learning or doing something new. My car once slid through an intersection on a patch of ice after the light had already turned red. I was definitely more conscious at this time of all the details of that scene. The maneuvers I was forced to make to avoid a last minute left-turning car in front of me were unforgettable, every moment expanded as I let up on the locked-up brakes to gain traction to steer around the potential collision. In this case, I was both doing something new, and making decisions as to what to do.

Anything you do that becomes routine also suffers from a concurrent decrease in your consciousness or awareness of it. When driving a routine route when there is little traffic, sometimes I reach my destination and realize that I do not remember driving through the last couple of stop signs. I do remember thinking about something I was doing in the laboratory at the time. I was conscious of what I was thinking about, but my driving was largely unconscious and routine--stopping at stop signs, waiting my turn, and all. Patterns of speech and social behavior are the same way. Like riding a bicycle, it is hard to remember what it was like when you were first learning and aware of what you were learning. I remember what it was like to look at words and not know what they meant. Now it seems impossible to look at any word I see without automatically reading it. Personality and interpersonal interaction become like this early on in life.

This kind of automaticity comes after much practice. Consciousness has a pioneer quality related to creativity. Anything you have done a certain way, or that you learned since childhood, becomes a background pattern like breathing, or any of a number of other behaviors which have become tooled into the genes. Culture is an unconscious pattern for the most part because it is so omnipresent, pervasive and regular--so predictable. So, the idea is that self-awareness and awareness of surroundings is enhanced basically by danger and/or a need for a creative response from what you know about the world. In the real world, this puts the well-meaning agreement of the media to only make shows where the good guys win in a new light. Awareness and truth allow us to solve problems. The fact is that the good guys do not always win. In fact, the scrupulous and honorable truth-motivated people are at a disadvantage when mixed with those who do not see or value such things because following

surface symbol-patterns or "false idols" which might have more or less truth to them, or even simply following a lesser truth, does not require strenuous knowledge-gathering. Murder is easy, justice is difficult. Truth and goodness are a delicate flower to be nurtured, as is the intellect which sustains such things. It is easier, and frequently returns larger immediate rewards, to follow lesser truth at the expense of a higher future. That is why so many animals still live and die in the relative pain of unknowing darkness-even though they know how to survive. New situations demanding creative responses increase consciousness. Try doing a routine activity a different way than you are used to. Walk down stairs backward. Try to shake someone's hand by bending over backwards and extending your hand over your head. You will notice your consciousness increasing (as well as the consciousness of others around you to your presence, I might add). Consciousness is heightened when you are learning or thinking about something. Consciousness is open, not closed. It comes to bear when you are considering a problem, not when you are doing something routine. Fear can keep you from breaking tradition or routines. Risk, change, danger, creativity, analogy, metaphor, and need are all conditions that give rise to higher levels of consciousness. Higher levels of meaning are actually heightened simultaneous availabilities of richly interrelated information networks. This is higher consciousness. During all these kinds of consciousness-heightened activities, it might be useful to monitor glial and neuron activities to better understand their interactions.

There is a lot of confusion about what is meant by "consciousness". To become conscious of something involves first that it be perceived. Perception alone does not constitute consciousness. As in the example of driving routinely and not really being aware of it, these things are perceived and even judgments are made without awareness. The contents of consciousness must not be mistaken for the phenomena of consciousness itself. Consciousness involves bringing relationships to bear on a problem. The more awareness, the more mobile information connected across time and space, the greater the consciousness. There are definitely different gradients and types of consciousness. This is related somewhat to your background, but also to your genetic endowment. Certainly there are those who use fear and aggression after learning a pattern of culture during an early critical learning period and then shutting down further flexibility. Fear and aggression serve to maintain the boundaries of the limited world view against encroachment, and serve in the stead of increased intelligence in many cases. This is not a blanket statementaggression does not always follow simply from lack of intelligence, but also from extreme intellect, like that found in humans, wanting to maintain flexibility, and an ability to grow, in the face of lesser minds when explanations cannot be given because they would not be understood. If a tiger is leaping at you or a shark is coming to eat you, you must kill it or be killed, for example. A dead person cannot think about possibilities or look to the future. There is no reasoning with or calming such a lesser creature, because it cannot understand even the words we would use. The only thing left to do is to kill. Higher

intellect, when it arrives on the scene, allows thinking which can eventually avoid these problems. Much of what you spend your life learning is preparation for eventualities you may encounter. This is not always apparent at the time, because many things we learn are adaptable to unforeseen circumstances. We are just motivated to learn. In other words, in new situations, we break up and analyze "schematas" (frameworks we build from experiences upon which events are interpreted) to be creative and adapt to the new, and we also try to adapt previous schemata. Behaviorists call this sort of thing stimulus generalization. Whatever you call it, this learning and creativity--setting new patterns--increases consciousness. Anytime we break out of old patterns our consciousness is heightened. Extreme stress can break us out of our patterns too. When we analyze our schemata, consciousness is heightened. When we think about concepts apart from our words, consciousness is increased. Consciousness and meaning are a large part of what Plato was referring to when he said "thinking" in that significant quote about the written language being the end of "thinking".

Consciousness is a great metaphor, even a recapitulation, of the process, and the goal, in life and man toward truth and greater flexibility. It is the inward journey of the force of life. Consciousness is the builder of our ideas and knowledge across time-the portal by which the evolution of our intellectual mind is done. It is the unity in our minds transcending time and space which drives and allows the advancement of our knowledge. It is a distillation and a reflection of that which allowed life to arise and drove it to advance in the first place. Science serves this force embodied in consciousness. The life force, or the growth of knowledge which assures existence by truth through trial and error, is driven by this factor. Consciousness, therefore, by its qualities of transcendence of time and space, unity, and meaning, seems to be the one thing about brains that has come from the future, not the past like our bodies and limitations do (more on this in chapter 6). Drop the limitation (and directionality) of time or space, and things become much more meaningful. In fact, all of existence and all of history only makes sense from this viewpoint (see my "logos echo" chapter). This is a big lesson of our own consciousness and its memory, etc. These are processes that we can "carry out" of our brains into the world to help us see-just like the periodic tables of chemistry allow us to extrapolate or, more pertinently, the binocularity of the twin Keck telescopes on Mauna Kea in Hawaii allow us to get much more information "out there" because they use a method that is inherent in our own biological informationgathering to a greater degree (binocularity). The very underlying, basic way our brains work is a huge arrow in itself pointing towards the nature of truth, and how to get truth, because brains are truth machines—as is all life. What do brains do? What do they move toward as "ideals"? When we realize where the evolutionary contingencies in our brains and culture are taking us, what the nature of the unseen reality and trajectory behind this must be like, everything becomes much more meaningful. Science learns the words and grammar, but the content of this message left for us across time (written across the universe

like some great 2001 monolith lying in wait for eons underlying all learning and striving) is simply staggering. It is the message of the universe and the message of consciousness at the same time. In religious terminology, it is the road to "God" upon which we have been traveling all along—toward that somehow familiar place of quiet power in meaning beyond this dance of creation and destruction which forged our beauty.

Apparently, from what we know about brain science and introspection, consciousness is a way of looking at ourselves. A way of looking at our own mental processes in order to see what is going on, to find meaningful patterns within the functioning of neurons and neural systems. We use conscious attention to expand our world, to infuse it with meaning, to unify it in ideas and memory across time. We use many tools in this task-from language, to the vast, complex rings of nuclear accelerators, to the images from our beautiful gilt space telescope. Most of our expansions in knowledge are in degree, rather than in more fundamental kind. They have been mostly like this any time knowledge has expanded in history. This may only be the case because our brains have already been selected to perceive smaller slices, smaller aspects of these things we expand on. It is easier to expand on these slices of reality than to fundamentally reorder them all, or move outside them. There are wider ways of seeing that people can be trained to do (such as Tibetan Buddhism techniques, the self-realization of the Hindus, or the spiritual knowledge of the Christians). They can show us different kinds of processes at work in the universe beyond our survival-adapted senses and predilections. These other "ways of seeing" work precisely because our consciousness has transcended or bridged the gaps in our knowledge at points. Consciousness "reads between the lines", so to speak, of our experiential reality, and affords that reality with much more meaning, and a profound unity. The social milieu, as well as the natural world, shapes what we see as important and therefore pay attention to. Newtonian physics led many to believe in a "clockwork universe", for example. Cultures are patterns of social interaction and survival (Hall, 1981; Harris, 1974). These patterns can also be transcended via conscious attention shifting and in various practices in solitary reflective settings-as seen in many religions. Education-when driven by the self-educating desire to know truth-can also allow you to transcend the social and natural world presented by our basic, older, brain physiology. You can learn great volumes about yourself during this process. All learning and all meaning depends on what we already know—which is unified, expanded upon, and woven together by consciousness. When we seek to learn something transcendent, or even something mundane, we focus our attention on it. We tool in more flexible patterns. This is as if the slow process of chance and natural selection moved into our brains, came alive, and became an internal "god" over itself to get the job done more quickly. In other words, it is as if the ultimate future of our behavioral flexibility was creating itself in our learning via our consciousness. Everything we do is toward the future, and the future always occupies our consciousness and thoughts. That is what makes memory of the past important. Consciousness

brings these two aspects together and builds a bridge between them. Creating and destroying require consciousness because there is a future taking root in both processes in the universe. Our conscious concern with justice, and also with higher creative aspirations in our practical (and also symbolic) civilizations echoes this larger pattern.

It is important to realize that the practical mechanics of our visual and motor systems also transcend space and time at the most basic level. In this analysis, we see the continuous bridge between the character of external spacetime and the realities of our experienced consciousness which transcends time and space. When we see with our eyes in the spatial sense, looking out in front of us, we are always seeing things "out there" in space that we could move towards. These things out there are actually in the future, because it takes time to get "there" to the seen object. From another viewpoint, that of time, the light we see reflected from that seen object always shows the past as well. The things we see out there are always time-shifted into the past because it takes the light time to travel to our eyes (however slight in everyday life). The image we see is always fundamentally "old"-a sort of environmental memory in the patterns of light. The point is that everything about us, and the universe, that gives rise to information, life, or meaning is fundamentally time and space transcendent even at the most basic level built into the automatic physical properties of the universe. We can "read" these properties to realize just how fundamental this is. Telescopes can see things in space from billions of years ago, since it takes light a long time to travel across vast space. Consciousness brings these things together. The unity of consciousness allows us to string together ideas about species in diverse areas, because our consciousness is actually the pearl of connection between all these things. The animals are the past which allows us to see our future, to understand ourselves. They are also us, our consciousness tells us-the line of heredity is unbroken if you remove the constraint and directionality to time. Consciousness seems to be indicating that it is valuable to remove this constraint by its very unity across time. Why do we try to learn the unity behind events? It is because this is the driving force behind all successful life forms. Civilization is simply the gathering of information from our past and future so that it can be apprehended and read by a single consciousness in a single lifetime that we might have the judgment and power necessary to move beyond this time of great danger and promise into the future of a new world. In the past, only death created greater and more perfect "truth"--which was only reflected in our behaviors. We acted as if we understood because our behaviors reflected a greater coherence which we were unaware of (like physics). Consciousness and understanding is to take over the purposes of this process directly and to accelerate the process, as well as to reflect the nature of the universe more accurately. These two aspects go together because we are not separate from the universe and we are part of the natural development of the universe. We became this process itself in our minds directly with understanding. The forms of events repeat, and this "repeating" itself is information that there is something powerful underlying their nature.

For fire, we once called it phlogiston. By learning the source of the unity behind events and stitching it all together into a whole, we increase our ability to live in the world. Understanding is the power to survive. People with greater ability to see the unity in things are larger containers of the life force—they are closer to the power which drives the processes of life. Consciousness is the life force incarnate in a natural sense—as part of the progression and laws of nature. We realize this and so we have religion. Nothing exists that is not also important in an information sense, and this includes the processes of our minds and consciousness and how they might relate to the basic underlying nature of our world.

We use metaphors, analogies, and allegories to learn and make sense of the world. We especially tend to see survival-related symbolism everywherefood, sex, competition, etc. But even these salient factors can be transcended as only parts of the world constructed by our own brains for a specific purpose and application. We are the selectors, organizers, systematizers, notepads, rewriters, and creators of our own realities. We are the living tree of life, in a way, since we can encompass and learn from all other organisms. The one constraint running through all of it seems to be our own survival, or moreover, the existence of a stable history tuned enough to have given rise to us or to allow us to exist. This is what we always discover. If we look from outside our worldview, and outside the worldview of all organisms for a common theme, the survival and expansion of all life seems to be based on flexibility (diversity in lower species). Greater amounts of flexibility in an organism require greater amounts of whole knowledge. Greater slices of truth and reality. There has been a progression in evolution towards something, some greater more whole truth, and that something is freed and focused-intensified and embodied-by consciousness and its learning. Memory is itself a transcending of time and space upon which our worldview is based, and our future is based. It is as though there has always been something up ahead--beyond the world we see and know in everyday life and everyday science, upon which religions, and philosophies, are based (looking forward "through a glass darkly", or the "shadows on the wall of a cave"). What we see now indicates greater patterns, and where we are going—our connections to things approximated in the stories of religions. This unified entity reaches back through time and draws us forward-much like Leonardo Da Vinci drew pictures of helicopters, tanks, and flying machines before they existed. And also much like tributaries flow into a river that eventually reaches an ocean. In this analogy, water, too is extremely important to life. The apparent purpose and direction of all evolution across species and across the span of our intellectual development, if any at all, seems to be greater and greater levels of meaning or unity and relatedness to knowledge-just what we find in our consciousness, and our symbol systems of language. There is the beginning of a new natural law in our knowledge from this-one defined by the future which completely makes sense of the past.

It is apparent from the overall character of our own consciousness and enhanced learning ability (which are just speeded up versions of evolutionary

processes and the distilled "ideals" of evolution) where evolution must have naturally been headed. Just as water is pulled into an ocean by gravity, information is being pulled together to reveal the direction and purpose of the universe and life. It may not be correct to say that rivers "intend" to create oceans, but gravity does tend to pull things together into unified regions, if the matter it pulls can overcome friction, etc. What sort of gravity has pulled our knowledge toward a greater unity and an ocean of greater behavioral and survival probabilities? Consciousness of our own mental processes is the most powerful thing an organism ever developed to break free of biological limitations. If we simply drop our narrow notions of the directionality and basic nature of causation and probability in time, many things become clearincluding the tendency of life to transcend these things eventually. In other words, we can organize the history of the universe more accurately based on teleological evolutionary trends. Trends which are only seen when we drop old, evolutionarily-limited ways of seeing. Once the minefield of half truths, fears, and love of stasis are negotiated, you reach a new level of understanding. All animals in the past fell prey to "false idols", or the idolatry of lesser approximations of truth. They fall on their knees in front of smaller slices of reality that have come to rule them and allow them to survive. These are necessary parts of and hurdles to the future-a sort of test of worthiness, and trial by fire. Consciousness is the prize of overcoming in evolution. A little knowledge is a dangerous thing, especially when it contains some truth—as the survival and organization of an ant hill shows us. Truth is the most compelling thing for life--since in this view all things are driven by truth. The very words and ideas we use make it hard to see these things because, though they help us to understand, they are only parts of a whole. Words and ideas in and of themselves are misleading if focused on narrowly. Only further understanding, and a great overarching mental mobility, can tread the waters between the "excerpts of reality" contained in the words and the paths of our knowledge. It is much like the idea of "spots" for functions in the brain from my earlier work (for example Romer, 1992; Romer, 1993)-these parts may seem to have a function to us, but they get their real meaning because of the whole brain they are embedded in, and working within. It is most useful to look at these parts only if we later can put them all together to make a whole brain model. Consciousness is the result, and impetus, of these same kinds of forces in evolution

Directionality of causation, and the physical nature of causation, along with biological metaphors having to do with hierarchy, sex, food, etc. are walls to our vision which were necessary for a time, but now must be pulled down so that we can expand our horizons again. These are part of the processes of creation, but they are only half-truths, which we must build further on. There is a higher, meta-organization to things which I call the "logos echo". This is a basic principle to the organization of things in the universe and on earth. If it were not, our very brains could not have formed at all. We could not have consciousness. It is an echo of patterns nested within patterns which enables

♦ *The Textbook of the Universe* ♦

our literary devices of metaphor and analogy. Patterns echo back through time like ripples on a pond from a mass dropped in the center. That center has always been ultimate consciousness. From the rise and fall of progressively more advanced civilizations, to the construction of pyramids and the burial of treasures in the sands of time, to the fact that we orbit a single sun, there is a reason that patterns echo. It is because all things were once one beyond time in the singularity of the big bang. The progression of time is an evolutionary illusion of brains. The underlying oneness of things beyond space-time allows meaning, consciousness, and "ghosts" of future structure to alter the processes playing out, and evolving, in our universe. The order of the entire structure of the universe follows this pattern. Our own behaviors echo this larger pattern buried under the fabric of space-time itself. All patterns and all existence can only be fully explained and understood from this viewpoint. Coherence itselfwhether of language, or reality, comes from the kind of unity found in consciousness existing as a binding and unifying force in the universe from beyond our space time world.

From heliotropism in plants, and a beetle flying toward the light, to those worshiping the sun-god, to our modern metaphor of light as truth, all have the same basis--a past echo of future higher consciousness. These are road signs to life which are reflecting the forces which build life, just as a spherical body in space reflects the force of gravity. All meaning comes from this singular force in the universe. The religious meaning of natural events comes from the effects of this second "gravitational force" acting in the universe which powers the generation of the universe and all life, and gives the benefit of survival to life that follows its tenets and "purposes" in the future. These are natural laws. Motivational relevance in these things comes from the great future reflected in them-the trajectory of all life. Science cannot tell us why we gravitate to meaning, or why the meaning of things haunts us. Part of the implications of this idea—explained fully in another chapter—is that all the life on earth is also fundamentally us. It is "us" in a holding pattern of information and support, providing both food AND base metaphors upon which we can be enlightened and surreptitiously communicated with by that supreme intelligence in the future manipulating probabilities. There are natural laws of information. There is a reason our literary metaphors are there-"hunger" for truth, "path" of knowledge, etc. (see Lakoff and Johnson, 1980, and Sacks, 1979 for excellent discussions of metaphor). There is a reason for the metamorphosis of butterflies, rebirth of scarab beetles, etc. These are motivationally significant Messages. Like the people who became books in Ray Bradbury's "Fahrenheit 451" (1995), these are living information systems. They naturally reflect where we are headed in life, and the underlying forces of life. These processes are part of the natural coherence of the universe. Living books from what we have called "God"-the ultimate unity of the universe, ultimate knowledge and truth. The prime mover that effects the generation and survival of things through probabilities toward its higher purpose. Inherent in this is the idea that things exist the way they do for their informational qualities. Phlogiston was a word

which described certain coherent aspects of phenomena which were previously only "felt" in consciousness (or for millions of years before that never noticed at all). We assigned a word out of our emotional motivation to understand and communicate the continuity underlying these different things which sustained fire. That word occurred at the beginning of our motivation, focus, learning, and consideration of those things. The things we pay attention to, the things we revere and love, arising from our emotions, are what we put words to and attend to. We could say "God speaks to us in our hearts", but it is probably more accurate to say "we read what God's will is, we read the revealed writing of God in our hearts". There is information in the continuity and coherence, in the echo of forms in things that has always been there. This information was previously only felt in religious impulses or numinous experiences, and now must actually be read. Helen Keller was deaf, dumb, and blind but her teacher eventually reached into her dark world and she learned to say "water". We needed to gather enough information to begin to see that there is information about the patterns of life in the forms things take. Those forms drive us forward-they are intended to help us keep moving forward as our knowledge came together in the unity toward which it was building. They are road signs which become the focus of our attention when we realize where we are going. Children do not pay attention to such things, but the driver of the car infused with the knowledge of the destination does. Natural forces of the universe led us to build our cities and develop technology toward this building knowledge. We are the "chosen" of the future unity in this. The extinction of the dinosaurs is a message to us automatically because that is the way the universe worksthis information is a natural component of our universe not apprehensible until our consciousness and science reached current levels, just as we could not have known light had a speed without a telescope. It has necessarily been a "covered-bridge" of sorts. Certainly dinosaurs were not concerned with truth, and they are gone. The larger dinosaurs had brains that were split apart to run their front and hind ends. They quite literally had their "brains in their asses". They were eating machines. The origin of species is not just chance and selection, but the manipulation of chance by the necessary, creating, future of consciousness. In the past, we only paid attention to the origin (big bang, primordial soup, etc.) and progression (evolution, physics, etc) of things without realizing that in the future there may be something naturally formed which is necessary for existence at all--consciousness. Consciousness is marked primarily by unity (meaning), and higher consciousness gives more meaning (which is unity) to things. Extrapolation from the nature of consciousness into the future of consciousness brings new principles of the universe into focus. For example, things previously only glimpsed superstitiously (premonitions, omens, fortune telling, etc.) may now be available to be seen in our computers at some point if we can organize and systematize our knowledge. We may have some dim idea that these kinds of processes or information might be available, but our science and knowledge has not gone here yet to uncover any unified or concrete basis for these feelings.

Those seen as "enlightened" in the past were considered "god-like". They were the ones doing the work of the future consciousness, and could see some hint of the patterns-hence "sun-god". The Egyptian pharaohs were considered divine, also. This "phlogiston of life" in the life-force, they called "God". Alexander the Great's own mother thought he was the son of Zeus-the sun god, for one among many examples-examples throughout all religions and times. He certainly wanted to unify things, and transcend the separate patterns of the various peoples, even though this may have been just an echo of the real unification we needed to do with knowledge or a common purpose in knowledge. Our communication satellites and internet are doing a much better job of it. In a later chapter, I show direct evidence that with increasing knowledge we can see that our own consciousness acquires an organizing force which echoes this larger pattern of the universe. All the world IS a stage where a symbolic play is taking place as an allegory of unseen forces, and the future beyond our conception of time is the probabilistic playwright, and eventual viewer. We must interpret the play and do our part to continue. The playwright was not "dictating", but most obviously from a certain viewpoint of the nature of consciousness, drawing us ever near to our destiny. We get power automatically by the truth we hold because the future demands it. Life-giving technology flows from science and accurate knowledge. The more truth an organism holds, the more its story is like the truth of the universe, the longer the life accorded to it across time and generations. Holy men go up on mountains (toward the sky, on a symbol of the convergence of the many into the one, a place of transcendent perspective) to get direction for the future. You can see far, and can see many paths from a mountaintop. To see symbolism in natural things and our civilization is to begin to understand the deepest law of the universe. The future point of unity and it's unlimited possibility is the object of life-this is also ultimate flexibility. Philosophers have poetically called this the "Omega Point" (Chardin, 1959) or the birth of the "Superman" (Nietzsche, 1884 in Hollingdale, 1969). These are actually our Future ancestors! They are the true source of life, according to these patterns. The people who are "at one" with God. The gods of Olympus shrouded in the cloudy peak that guide world events. Religions have called it "sun", "son of God", "kingdom of heaven", Valhalla, Nirvana, self-realization, etc. We have a feeling that all religions share a commonality deep under their doctrines. They do, it is this top-down, transparent organizing force seen reflected in Anthropic Cosmology (Gribbin and Rees, 1989) which is consciousness at work-the organizing force threaded through everything and evidenced in unity and meaning in things. This view logically follows from the processes of life, and the nature of our own consciousness in relation to these processes. Religions are all drawn towards the greater truths to come in the future glimpsed darkly--Just like phlogiston, alchemy, and epic poetry dimly captured the form of greater truth to come. A destination foretold in an imperfect map.

Kingdoms of the past have echoed this theme—one monarch directing a kingdom echoes the unity in the future (and the past—beyond time is the same

everywhere) directing us forward. An atom has a central structure with clouds of probabilistic electrons around it, and everything is built upon this centralized structure. Solar systems are also reflective of the apparent nature of consciousness. The Sun in the sky is symbolic of consciousness supreme over the things of the earth in the future. It is an echo of the future, an echo of the power of the unity which drives life forward. When enough matter comes together, the combined forces in the unity triggers atomic fusion and fission processes which make it light up, and the energy from the sun drives all of the processes of life on earth. All of the planets revolve around the sun-lesser unities. We also know that our larger elements were formed inside of another sun which was here before but exploded—a second "big bang" of our own solar system absolutely necessary for our own life. The sun drives all weather on the Earth. The sun is actually what allowed and drives life, but also it is a symbol for a greater unity intrinsic to the nature of our universe. Our linguistic metaphors in our language are based on these types of meanings. We are on a path to ultimate flexibility and transcendence. If we fall from the path, we are destroyed utterly (obviously), as if some important constant of matter changed slightly—unbalancing the forces of the nucleus of the atom, flinging all atomic structure apart into oblivion. Our very existence depends on these "centers" holding together-everything from the unity of the solar system down to the unity of life and our cells, and even the unity of atoms. Even getting partially stuck along the way is dangerous-for example the "dark ages", or the time of the dinosaurs. There is a reason we use the metaphor "dinosaur" to refer to something large, obsolete, and in the way of progress. We like to call ancient peoples "cave men", but the real caves they lived in were caves of ignorance upon which the shadows of the future played. In the bible it says that "my people are destroyed for lack of knowledge", and necessarily so. Lack of knowledge is destruction. We must value more highly than anything those people that have an ability to see these things, and are driven by truth. The future echoes into the past-the future of higher knowledge and consciousness. That is the origin of all form and meaning. This is the root of all motivational significance on a higher, metaphorical level--just as food is highly significant because of how it allows, preserves, and extends our life. Food is something we actually need to sustain our bodies and is a metaphor for knowledge because knowledge also sustains us-as when we "devour" a book, or are "hungry" for knowledge. We can see the future when we read the metaphors of the pastthey mirror each other. The bold pioneer Rupert Sheldrake (Sheldrake, 1981) calls these formative forces "formative causation", but views them from a nonconsciousness, and present-time viewpoint. I think his ideas, like all other abstract ideas, came through a glass darkly, "formative causation" being similar in this sense to "phlogiston". These ideas are true in a sense, and pioneering, but lack a unifying scheme. Seeking truth, which is unity in science and all knowledge, is the key to the success of life. Moreover it is the life force itself: the impetus that drives us forward, the ultimate commodity of civilization, the real gold running in the veins of life. Corporations are a symbol of this larger

pattern of life, and their money is symbolic of this larger source of life in transcendent knowledge and organization to things. Growth and profit ensure the longevity of a corporation based on the decisions made by those involved with a view toward the future. There is actually direct, unequivocal evidence that the intelligence of a population is directly proportional to its economic output (Lynn and VanHanen, 2002), and that intelligence predicts economic output better than any other factor. This makes perfect sense, because that holds true for individuals and their economic success in general (Herrnstein and Murray, 1994), and civilizations are reflective of the best minds within them. Certainly the unity of knowledge in truth is obviously the impetus behind both science and religion, and the connection between them from this larger viewpoint. Consciousness is the "grand unifying theory" of everything in our experience and in the world. All life is one in this future, extrapolating from the symbols we know now, and the evidence we have now.

Consciousness, and meaning, could not exist at all given the current scientific paradigms (describing our brain function) we operate within. This is a rather large problem, since these things do exist and are arguably the most important factors in the universe. This gap is far too large and important to ignore. By using our knowledge of what it is like to be conscious (introspective methods), we can see the limitations of our fine-tuned, limited-variables empirical science. Science is an externalization of one aspect of normal brain function-learning and testing "hypotheses" about the world. Science is like life-only in nature, species and members of species die when they are not right. In our civilization, people may actively work to prevent advancement because they might lose power, money, or attention for their ideas if they are wrong. The politics we find within our halls of science becomes an ominous problem for our future. This is another reason why motivation for truth, justice, and honor are extremely important to the development of the knowledge we all need to survive. We are extremely flexible in this adaptation-most animals and insects have workable "theories" according to whatever niche they are in that are quite successful. We need to look at the evolution of things from an internal perspective. Ants and cockroaches are two successful, long-lived, excellent living "theories" about the world. What they do is what the world is like to them—they are built for it, they sustain that part for the whole. A giraffe, a whale, and an eagle all live in different worlds. Put one of them in the environment of the other, and they don't live very long. The things they pay attention to, and the "world view" they hold, serves them well-literally, because they get food, and defend against invasion well with them. Their environment is literally built into them. You might guess what environment they were built for and even what they might eat by looking at them. They do not progress, however. They have become more like the static natural laws of the universe, rather than the force which draws life forward. This force of meaning and truth is the torch of transcendence—whether in an individual or a civilization.

Humans are very different than most life on earth because they are flexible, and can learn well. We can learn all other behavioral, and survival strategies of the lower animals, and even of other humans. Some people do not keep going-they settle into a comfortable pattern we call personality, or they acquire habits because they can (or must). In past civilizations, scrolls and writings were stepping stones to communicate about what people had seen, to help give the future a head start—like the pharaohs burying treasures for the future "after" life. In a similar fashion, we have the living diversity of species itself laid out before our science. They constitute the book of life where the one light source of the "author" is reflected everywhere. Our fascination with mirror-balls, where one light source is reflected everywhere while we dance to the rhythm of music under this hypnotic motion, echoes this. We were meant to learn from and build on those earlier eras (in nature and past civilizations too), not go back to them. Our civilization is much greater, even if those older civilizations seem to have distilled out the essence of the pattern of life which they were built around and which compelled their leaders and citizens. The universe is speaking to us in these vast patterns too. The only reason we might wish for those things, those days of ancient civilizations, is that we have become dangerously detached from the larger patterns of existence. Our ascendant social world has become superficial, and our lives busy with communicating. There is less time and motivation to think and question. It is a dangerous time when we could let these things slip from our grasp. Deceptions and ignorance are rampant. If it is a matter of needing to upgrade our intellectual ability and motivations, then we must complete these processes. Instead of looking at the universe as "out there", we need to see it as "constructed" by us, in a way, in order that we might continue to exist. Animals live in smaller worlds contained in, reflective of, and part of ours-actually part of us. Right now, we are at a crossroads—we see that our view of the brain and how it works is seriously flawed. Certain patterns of nature and the universe speak of a higher "consciousness" that built the coherence we apprehend right into the universe that it might be created, and this higher "consciousness" is actually part of the natural order and natural law of the universe. The progression of life, and the nature of consciousness in relation to brains points directly to this idea. Humans also have certain worldviews, blind spots, and limited inner environments. Just like the animals mentioned in the first part of this chapter we have built-in tendencies and can grow narrow and rigid. We are flexible, but also limited perceptually—as in the narrow spectrum of vision. We get around these limitations entirely by increasing our knowledge and with the constructions of our technology. That is the primary purpose of our civilization's technology: to find truth in order to continue on the path of life. Strength, justice, honor, fearlessness, and love of truth are not the highest virtues for nothing-they all lead to higher consciousness, and arise within civilizations as engines toward building higher consciousness in the knowledge and ability of the civilization.

This currently limited state of our brains poses a huge problem to future inquiry, because we are built to perceive the world according to our survival. We are flexible in that we are just beginning to move fully away from this "automatic" mode which is a common characteristic of both matter and lower animals, but also still limited--limited in ways that are transparent to most of us because we get everything we know through our limited "apparatus" and our theoretically, and conceptually, provincial brain. We also have to admit to ourselves how primitive we still are, and that can be painful (unless you have absolutely no ego). We must acknowledge our individual differences in motivations, perception of meaning, intelligence, creativity, coping patterns, etc. The picture painted by our brains that we see is a complete one for most aspects of daily life of mere survival. That is the nature of a totally interrelated culture of information (Hall, 1981). It is complete, because it is us. We complete it in our minds by paving over blind spots. We can deal in some way with everything we can think of in the relatively limited time most of us spend thinking about things. We are provided everywhere with ready responses. Many of them are merely fearful and rigid patches over the unknown. But there are necessary realms of thought we may not have even begun to think about that are still invisible to us. It is my intention to make them visible in this book so that mankind might continue to have a future. The question we want to ask ourselves, is whether we just want to be fed and sheltered, which leads to death, or do we want meaning. Do we want to know truth-do we love truth-the distilled essence of the universe and the overall, long-term key to life? This is the faith of both the creative scientist, and the holy man on a remote mountain. Heads of state and corporations also are driven by the need for knowledge and help to create an atmosphere and resources for the growth of knowledge in the building of a civilization. Advertising and entertainment transmits important information otherwise unavailable, along with its obvious practical commercial value. All of these things are connected. In a symphony, each artist knows his instrument, and plays different sounds, but the overall harmony and beauty of the work they do drives them to harmonize with others and draw crowds in to hear the beauty of it. These things do not exist in a vacuum, and all of life is a symphony—with each organism playing a different instrument or a different octave, but adding up to something much greater that enhances the beauty and meaning of any organism when you see it. Animals reflect the environments they were made for. There are many different kinds of fish which share common qualities developed from living under water, and there are also common qualities in those that build and maintain civilizations. They share the qualities of intelligence, motivation, perception of beauty, higher vision, and cooperation. The man on a remote mountain plays a role. He is driven by a feeling, but does not realize the pitfalls of only paying attention to feelings and symbols. We must realize the real work to be done, and that the real mountain is paradoxically the invisible one-scaled with the concerted efforts of a civilization gathering knowledge. We have the brainpower and resources now to bring a new age of understanding only dreamed of by previous generations.

It is sometimes said that while we have advanced scientifically, our wisdom and spirituality have not progressed enough to handle our new technology of nuclear weapons, genetic engineering, etc. In the viewpoint I outline here, we can see that this might logically and literally be correct. With the direction of knowledge outlined here, we can gain the additional knowledge we absolutely will need to properly deal with these things. Understanding consciousness will require that we leave the bounds of these comfortably coherent conceptual "homes" provided by culture and brains. This will be somewhat like trying to get a bat to look through a telescope. We are much more flexible and adaptable than a bat, thankfully! Some will be limited by their genetics and/or learning and will not be able to see these things at all. Not everyone will be able to see these things fully, I'm sure. With hope and commitment to our children in our hearts, we can change these things for the better and bring peace forever to the Earth. We have taken the leap into higher knowledge, and we have a parachute built and packed in our science and technology that will land us smoothly on a higher plane. We need to see what these things are ultimately for in order to catch ourselves before we fall. We cannot afford to be unbalanced by inaccurate and incomplete information. We must find the ring that opens the parachute and use it for the purpose it was made-to save our lives.

Brains encompass only partial segments of reality, but nonetheless make that segment feel complete and internally consistent. Expanding the degree of perception within our segments of reality advances science, and exposes our obvious "perceptual degree" shortcomings, such as the narrow range of light we perceive. We need to look beyond these things because of what the phenomenon of consciousness itself shows us about our perception of the world. We have internal theories of physics, and internal theories or representations of God which have surged in interest recently (see "God and the Brain" article in Newsweek—Begley, 2001). There are large things missing from our world view that are not just a matter of degree, but of the kind of perception we seem limited to. Several years of observational data (dealing with coincidences and relationships beyond science) that I have collected show this. Synchronicity, or meaningful coincidence (Jung, 1960; Combs and Holland, 1996; Peat, 1987) are another older way of looking at these events which stem from the organizing principle of the universe in the unity we experience as consciousness, in this theory. We begin to realize that our own consciousness has creative force in the universe like the original consciousness which made it. Our cultural constructs and our civilization are partially a result of, and primarily powered by these forces of consciousness in our best people interwoven into a greater tapestry. These are what organize civilizations-like a collective religious impulse or spirit builds a cathedral. These phenomena are key in our understanding of the origin and role of consciousness and also in a larger sense describe the origin and role of the forms in nature. Arthur Koestler states in this Combs and Holland (1996) book on synchronicity:

There exists a type of phenomenon, even more mysterious than telepathy or precognition, which has puzzled man since the dawn of mythology: the seemingly accidental meeting of two unrelated causal chains in a coincidental event which appears both highly improbable and highly significant.

I have collected the kind of experiential, observational data presented here over the past several years. It is very difficult to collect this kind of highly interrelated data and still maintain a normal life, because it is an extremely different way of seeing things. You have to stop and carefully record all the elements that were significant within a highly meaningful spontaneous event. Some highly salient element may catch your attention, but upon further investigation you see more and more in the relationship. First you need to be aware of many things which we otherwise do not remember about our conscious experiences. We normally do not remember them because we are busy with the tasks and social interactions of everyday life-those surface things which we do to get by. We tend to operate, and apprehend meaning, according to those constructed meanings in language and accepted patterns of culture rather than to operate by those spontaneously organizing events which might arise that have meaning in relation to our own thoughts and experiences. These events get this meaning by echoing or paralleling our thoughts and experiences metaphorically. This data (presented in this chapter and especially chapter 4) is spontaneous correlations of events or things involving other people or animals. They are marked by their low probability, and that they approximate or parallel our thoughts, experiences, or mental state at the time they occur. They affect our moods and decisions on the level of a larger unseen pattern to things. They are a shared unity between events in the world and the deep feelings, thoughts, timing, and dynamics of the conscious mind marked by a distinct pattern. This pattern shares nothing in common with our theoretical notions of randomness. There is order here, not chaos.

I have noticed these things happening for other people, in relation to their thoughts, while I was with them and observing in this mode. I notice parallels to things they are talking about that occur, but the speaker is busy talking or doing something else and these events seem invisible to them. Either they have not learned to see these things, or I am some sort of mutant with some characteristic that allows me to see these things. I am being sort of humorous there, but that is a possibility—in which case, many people may not have a clue as to how to see these events. For example, I was working on this book and came downstairs to talk to my father for a minute, and we started discussing his favorite book he read many years ago which my mother had found for him on ebay. He began describing the book about a guy who shrinks and learns to talk to ants. He has an ant friend named "Atta", my dad explained. I said that "Atta" was the name of an ant character (the princess) in a recent ant movie called "A Bugs Life". I was saying that there was some relationship to these two ant

names. Exactly at the end of that part of the discussion, as I was getting up to go back upstairs, a commercial came on I had not seen before for a new airline service called "ATA". The commercial showed the "ATA" logo large across the screen several times as the most salient thing in the commercial, and that emphasized the meaningful effect. I pointed it out to my father. I said "there is the ant Atta's favorite airline" or something, but what I was saying didn't seem to register. Furthermore, upon reflection, I realized that I had also been using the ant colony analogy all week in this book before that—which provides another meaningful relationship to these otherwise unrelated events. People have no framework for understanding these natural events and so they do not see them or make the connection.

I have noticed these things fleetingly (or less saliently) since I was about 7 years old. I used to have a conviction that there were other relationships to things because it seemed like I could predict things that were going to happen some times, or had some sort of related knowledge beforehand. There was some sort of connection. At first you only notice the main surface event-like in the "Atta" example above-and then you begin to see the other relationships surrounding that event through time and space which fill out the meaning. It is almost as if you begin to see the universe as a giant book and begin to read the meaningful words written there. I started paying more attention to my thought processes, and learning and experiencing a lot more, until I was able to directly see these events happening. I still had no grounding in which to understand these events, so I just left it at that, rather than coming up with a spurious explanation or framework for these phenomena. I am only interested in truth, not make-believe. There is no life or power in make-believe. All I was really left with is the idea that there was something there, but I was not sure what. The ready alternate explanation supplied by our current worldview that these are "just coincidences" is a large barrier to seeing these relationships. We pave these things over in trying to make a complete world view out of an incomplete world view. As I gained knowledge of the world, and began to pay attention to my own mind more, I began to see more of these complex meaningful events happening simultaneously. They were woven together. I considered the impossibly low probability that these whole systems of multiple, complex events happened by chance. Imagine throwing many dice at once-only with words on them instead of numbers. Imagine them falling into place in a certain pattern which makes sense-every time! Further, imagine them falling into place forming a sentence that describes or echoes metaphorically other events surrounding the dice throw. Simply counting the coincidence of all the variables at once makes some of them quite artistic and simply beyond any conception that they could possibly have happened simply by chance or coincidence. Learning seems to unlock these relationships--just as learning vocabulary words unlocks the printed word, and learning in general allows more and more meaning to organize around those words.

It seems to me to be a state, or a stage of development, that the mind reaches after a certain amount of truth-seeking. The more you learn, the more

meaningful things become. Things are meaningful because they are related to other things. To reach this stage, you need to learn all about your own dynamics and emotional makeup and then you need to have a lot of general knowledge about the world for its own sake. You need to be motivated by truth and have a large ability to find it. All of that is much easier said than done. At any rate. I could no longer entertain the now ridiculous alternate explanation that there was really no information there (that it was strictly random coincidence), once my learning had reached a critical juncture. There is information there, regardless of whether or not our current intellectual framework can encompass it. Information IS the ordered relationships to things through time. Additionally, I began to be interested in ideas of experience and consciousness more and more, and then these meaningful events seemed somehow to factor in. They seemed to factor in because those salient meaningful things experienced in consciousness are what is ultimately related in these external events--beyond the conceptualizations of our current world view. Meaning is the nexus of information allowing creativity. My level of learning reflected both of these directions in thought at once-learning about the brain in combination with the working knowledge from many other areas of inquiry that I had developed allowed me to see the central importance of consciousness and the importance of these phenomena related to consciousness. I have had some success getting others to pay attention to these things too, so it is less likely that it is very sparsely distributed genetically in the population. It does involve a large amount of cognitive ability, and an ability to hold a lot of complicated relationships together in mind all at once so that you can make connections between them and write them down. The people I had success with were extremely intelligent.

As soon as these meaningful events happen-which can be anywhere or anytime-you have to almost go immediately into a trance state where you do not attend to any thing else but that experience-going over the elements and keeping them salient and focused as you write them down in much more linear language. It is intense introspection and analysis of the related elements, both within and without-analysis of both thoughts and events. These things normally flow through consciousness as the stream of consciousness. If you do not pay attention, you can capture the salient elements only-and even these are easily forgotten in time. You have to know yourself pretty well. You must realize that these things are not exact like physical science. The example above with the ant "Atta" and the airline "ATA" shows that even though there is a letter missing, the sound and form of the word approximates what was said. We should find this easy to accept, since our written language consists of words which look nothing like the things they describe and only share meaning. Back in the days of hieroglyphics, at least the symbols looked like what they were saying, or looked like the root of the metaphor involved. In fact, hieroglyphics may have arisen as an externalization of these things we see that we already "read"—parallels and natural symbols in nature from the logos echo, and these meaningful events. The idea for language itself most likely came from these

things. We began to be able to construct the meanings we saw, and to transmit them better by representing them in picture-writing that looked like the things in nature. We developed our own echo-ability. We began to do what the universe does, we had become so perfectly formed to reflect it. We have to understand that writing is like statues of living things-writing captures the form like a snapshot, not the moving life of them. These events are normally very fleeting and constantly in motion. For example I have experienced meaningful events that have converged from seven or eight separate data streams or centers of meaning woven together out of other events or thoughts I have experienced. Some are very simple one to one correspondences. To the average person, these things are fleeting and not remembered. From the more meaningful events, they just get a small emotional response left over which they discount using accepted "coincidence" interpretations, etc. Regardless, there is definitely a pattern here. The world tends to organize around centers of meaning, and patterns come together to produce meaning with a certain logic and coherence to them that is intimately related to our consciousness. We learn, and by learning automatically become creative-another new natural law. If we are searching consciousness only for clues to food, etc we will miss these things. Consciousness seems to be part of something woven through reality itself which we call meaning or coherence in our limited experiences of it. The one thing you need to be aware of is the general probabilities of events. That involves a lot of learning and experience that you pay attention to a much higher degree than most people do when they learn something. You need to form a working whole to knowledge by tying in and constructing together your knowledge and then putting it in motion. Like the periodic table of the elements, when you build your knowledge in this way you are able to see things which are otherwise invisible. The knowledge surrounding the gap in knowledge fills it in and makes a description indicated by the lines of evidence everywhere surrounding the unknown thing. This is how we get beyond the given information to build knowledge. At some point, if you are on the right track and have enough knowledge available in the civilization, the true nature of all of reality may become apparent. This is what we see happening in the information explosion, the internet, and the rise of journals and conferences toward a science of consciousness in the midst of these things. Consciousness studies is at the pinnacle of these pursuits.

There are books on the relative probabilities of daily events, but it is more important that they be rare and significant to you, within your own sphere of experience. For example, you may rarely watch TV (like me) and so any thing you do see during those times you are walking past or watching for a few minutes are especially meaningful because they happen within the greatly constricted window of time that you are watching. You have to take these sorts of things into account when evaluating the probabilities. Things you know you have never seen before and are extremely rare or one-time events are the best they throw the relationships into a relief that is unequivocal with our everyday task-oriented ideas of causality. Say you travel to a distant museum that has a

traveling exhibit with items you have never seen before, combined with something you have just been reading or doing that day or very recently. More about this actual method, and more evidence, is presented in a later chapter, but the important thing to see here is that we can move beyond the ways we tend to see things with technology (telescopes) or with techniques and training of our perceptions and attention (for example, the techniques for refining human consciousness in Buddhist methods; Wallace, 1996). One of the things apparent from this introspective data is that our very notions of both time, and the directional causality of events within it, are incomplete. They are just a very good theory built into our minds very early on in the evolutionary process as a framework to exist in, like a nest. In order to understand consciousness and its importance, we will need to change our whole world view. There is no escaping the gravity of the ideas I am building in these chapters. The gravity from the center of a galaxy warps space-time everywhere in the universe-however slightly as you move far away. Consciousness is the driving force behind the universe--which our individual consciousness reflects and models both in its form (unity behind the manifold events of the brain) and function (ties together things through time and space to distill out larger patterns so that we can exist). The forms and construction of the universe, and the relationship of life to these forms, is a machine for the creation and nurturing of the reflective consciousness that eventually arises and becomes mobile as a result of the action of the natural laws and the pull of unity from beyond time. Information has a certain invisible gravity because it provides increasing survival-fitness to the organisms that develop it when it becomes more unified. Motivation for truth against all obstacles is the selection process of this overall creation engine to increase the ones who need to build this future. All of the universe is a coherent "coincidence" leading to the meaning reflected in higher consciousness-therefore it is not an unexplained coincidence, but rather a direct result of the natural forces giving rise to our universe and our existence directed toward this end. Consciousness is the hub of reality around which all events move-both in our thoughts or experience from this new methodology presented here, and in the universe and its patterns. There is a dynamic that is basic to the construction and meaning of everything (thought or reality) involving probability manipulations for existence-improbable relationships have meaning. That is why organized words have meaning and random ones don't. We were built to read and learn the meaning of the universe. We have done this so well, that we even do with our words and our experience in consciousness what naturally happens in the universe-we construct coherence and meaning to teach others, and share experiences. We reflect the meaning and knowledge in our unified brains everywhere in our civilization-in our advertising and entertainment as well as in our schools and libraries. This is possible because this function of the universe is built into our minds just like physics was-while being transparent to our knowledge until it reached a certain point. All of life is like a necessary covered bridge of sorts-to protect the evolution toward truth from being diverted, and so that it could be carried

\diamond Steven E. Romer \diamond

forward. Civilizations in the past were approximations toward this end-the coming unity. Pyramids, language, religions, Epic poems, all of it was the phlogiston-like conceptualization, the emotional glimmerings of the staggering knowledge of the cosmos now opening before us like the vault of God. We are now in the process of waking up from that history entirely to see the writing of what we called "God" across the face of the universe. In the rapidly changing modern world, we now need to be aware of this to avoid all kinds of dangers and deceptions mounting on all fronts. There is a revolution coming to our world from a realm that was conceptualized as "heaven" in the past, in many different cultures, and it is reflected everywhere in our growing knowledge. It is reflected in the evolution of life, and it is reflected in the origin and evolution of the universe, and the patterns of matter within it. It is reflected in the patterns of government with written laws written similarly for us to glean as those already written into nature. The laws of nature are the higher laws, of which our own governmental laws are simple pale reflections which have grown full of mans more selfish and immediate purposes. Laws are not there to do or get what we want, but to ensure that what we desire does not interfere with the plans of the creator. This revolution is the ultimate transcendence of our evolutionarilylimited world view, and it is coming just in time to save us from certain destruction in our unbalanced current world view-to turn the dangers of our technologies and languages into strengths for the future by organizing them under the ultimate law and creative force of the universe.

A few recent/selected data from years and thousands of recorded observations:

1) I was considering the significance of these coincidental events, and thinking about the origins of human conflict through history when "Celestine Prophecy" was published. I had actually considered writing a book about those sorts of things, because it seemed like peoples' blindness to factors like those in that book lead to a lot of misunderstanding and evil. It was like I had written most of that book-very uncanny coincidental parallels to my thinking at the time, some almost exactly verbatim. This sort of thing with books has happened many times as I have progressed in my knowledge and thoughts. A few years back, in 1990, I had begun to think that metaphors were the key to understanding much about our world. I had thought about them and talked about them a lot to my friends. I had not read any books on the topic, and didn't really think there were any. I had just noticed that the metaphoric process seemed basic to our understanding of language and how our minds worked. One day during this time, I drove to the next town with a friend and on the way home I saw a used book store and pulled over. I went in to take a quick look around and found the book On Metaphor (Sacks, 1979) there-a thin, black, used book difficult to pick out. It was almost as if I walked directly to it, I found it so fast. The nature of that adds to the

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improbability. It was a collection of 14 essays by people from diverse fields on different aspects of metaphor. Moreover, the book was about metaphor in the sense that I had been conceiving the phenomena myself. It said the same things I had been saying. It was as if the future knowledge I would have was building itself in me before I knew what the purpose was to this quest—just like with the saga of life on earth.

2) I developed the idea of a spiral shape as a highly simplified, but effective way of picturing the unity that we cannot see in nature until we get enough of the picture (see the Logos-Echo of unity chapter). Small sections of a tight spiral look parallel but disconnected, just like metaphors or allegories in language, or the underlying parallels to all religions. As you rise above the spiral, you see that the spiral is actually formed of one single line. From a narrow viewpoint, the way it is laid out makes it look like lots of vaguely or impossibly related things. Our limited perspectives have a hard time seeing overall abstract patterns. Spirals have a center and radiate outward somewhat like ripples on a pond. The unity of the universe ties things together like this. That's why I chose this symbol as one of my favorites years ago. I began collecting spiral-motif items and pictures all over. I drew spirals for my friends at work all the time until it was a running joke with them. The cover of "The Journal of Consciousness Studies" in 1999 June/July Volume 6 is a head with a big spiral in it. I still remember the impact this had on me when I first saw it on the cover after I had begun thinking about these things-something like awe of GOD. Earlier, in 1996 or so, I had been drawing the spiral on various media at work, and explaining to people that it was central to the theories in a book I was writing. I found out later that a series of conferences was started in Tucson Arizona around the same time, and the journal mentioned above started around then too. Later when I was able to go to a conference there, I found out that Tucson sits in the middle of a national park the major attraction of which (besides the cactus fields) is some of the best, largest, spiral-shaped petroglyphs in the desert! The whole of all of these events is uncanny, since I had been attracted to the spiral motif from my own thinking about consciousness without knowing about these things. Other spiral-shapes have appeared in other ways since then, such as the helmet of my favorite Supercross rider Travis Pastrana—whose number (199) is like the number an old friend (Dave Fellows) used to call me "9-9-1" because we both shared the same birthday, but mine was a year earlier than his in 1964. We were both "9-9's", but he was "9-9-2". He had a dirt bike and I always thought he was very skilled with it. I remember sitting there in his front yard watching him ride straight up to and jump, with a glancing indescribable maneuver, off the trunk of the tree! I ride dirt bikes too,

and I knew the skill something like that took. It was awesome. There were lots of spiral-shape events like this.

3) Another event happened quite recently involving the mail and a Journal of Consciousness Studies issue again, since we are on the topic of that journal. I had spent about an hour talking about several things related to this book with my Mom when the mail came. The mailman knocked on the door interrupting us. I was standing where I could see that it was the mailman, so we kept talking for a while. I was saving how things that happen in the world reflect larger issues, even things in our academic world. Through the logos echo, we can see that all the world's a stage. Smaller events and patterns reflect larger things. We can see in the patterns played out before us where we come from and where we are going in a way that can be more easily understood by a man in a single lifetime. This is part of the living textbook of the universe. I made the one example that the B. F. Skinner "learning machines" were like the universe if we combine the Skinner food reward boxes with that concept, along with the controlled environment child-rearing box he put his daughter in. These things may seem barbaric or ridiculous, until you understand their value in teaching us and helping us realize exactly who we are. Their MEANING might be more important psychologically in where that pattern leads us in our thinking. The principles of behavior were already delineated in Skinners Science and human behavior, these boxes were poetic applications of these principles. B. F. Skinner was a poet before he was a psychologist. The patterns in these constructions he was famous for echoed larger patterns about our world. I talked some more about how Northern Europeans must have originally been the ones to see these things, these larger patterns and "writings" of the universe. We see it in the tiny figurines and symbolic images made there 35,000 years ago and in the similarly ancient cave paintings of Europe-which resonate meaningfully with Platos famous quote about "shadows dancing on cave walls". I said that these things are the origin of all religious impulses, and that different religions might have arisen from both racial and informational mixing during a sort of "diaspora" of these northern European types thousands of years ago-a shared wealth giving rise to pyramids, philosophies, and religions that seemed so familiar in their basic patterns. If these people "read" the universe and symbols around them, they would be highly motivated by nature to then explore this world that seemed so fundamentally familiar to them-to "read" more of the book, and to find further wonders. Some of the earliest writings we know (the epic of Gilgamesh from 5,000 years ago, Homers Odyssey) are epic heroic quests to find some great wonder or other-the flower of immortality or the golden fleece. Aspects of the different religions, and their orientation to sun imagery, pyramids on different continents, Viracocha

myths of South America, Caucasian mummies found in China 4,500 years old, swastikas found throughout ancient societies, Bones from Caucasians found in the Pacific Northwest from 9,000 years ago (Kennewick man), and quite recently (after this talk and these events occurred) on Dec. 3rd of 2002, I read of 11,000 year-old Caucasian bones found near Mexico city-the site of the largest pyramids on earth. Tibetan Buddhism (up in colder mountainous climates) is appealing to western minds in certain ways too-probably from the same mixing, and continued selection from a harsh climate. Religions all seek to explain larger patterns of our minds and the world with structured symbolic systems. These patterns extend past our own short lives and are the perceptions of eternal principles. Even "holy" caste systems in India are much better understood in terms of preserving these universe-reading transcendent genetic types, for example. A sort of spiritual and visionary eugenics to preserve the best originators of the culture. Truth and spirituality are related to reading comprehension and intellect. Science and religion both are the essence of these things. They are the same. I was talking about this stuff, the effects of Genghis Khan on the genetic makeup of populations, and how the building of the Great Wall was indicative of the Chinese mindset. I mentioned how they reflect us well in many ways--with their intelligence and their Falun Gong religion, etc. even though they tend to rigidify their knowledge and do not move forward with it well. We can still see ourselves in them. Anyway, I eventually summed up by saying that what drove all life forward was the same force I feel in me now. Each creature pulling itself out of a niche for the first time and moving on to start a better pattern against all odds (a mini "quest" echoing the quest patterns and legends in our own societies) must have been as resistant to adversity as I am from the necessity and force of truth within. I talked about how our civilization and our construction of machines and symbols with 2 aspects fits the universes own construction in that there is the monetary reason, practical reasons (for example, a man invented a machine to greatly accelerate the genome project ostensibly for monetary reasons—but there is a higher meaning and purpose behind even this-i.e. what we do in life echoes in eternity, but also what is conceived in the patterns of eternity echoes in life), but also because these were necessary to overcome dangers right now, reasons related to the grand overall patterns. There are larger meanings to everything we do and structure in our world. The universe itself has both a structure and practical features, but also a higher meaning in the larger context of all things in motion through space-time since the beginning. We cannot express power if we are confused, we need a larger coherence to help guide and bind our vision into a pattern of coherence which works toward that larger future coherence. This is the essence of the logos echo-the grace of God. This is the divine right of kings-the right of

guiding, not dictating. A true king is a great pupil of the universe, and therefore a great teacher of the patterns in it. A flock of geese flying south, a pyramid focusing on a point toward the sky, a tall tall mountain which the brave wish to scale, these are the patterns of God and the march of the life-force, the fire of the universe, toward the creator. These are the poems of God. Understanding this allows us to see much more in our daily experiences. These set up an infinite loop which catapults us into the land of the creator when we find the keys. The logos echo is the key. Anyway, I was saying to my Mom that we need to adjust our genes and our worldview in a few important ways. I said that everything is going to change-our religions, our education, our view of ourselves, and our view of nature. I said that the Copernican revolution was an echo, an automatic prophecy and precursor to this much greater revolution. I said that the Copernican revolution was a sort of literary foreshadowing of what is coming now-we are entering a whole new era, and everything will be different, everything will be better, and there will be hope as the world begins to revolve around the unity of truth in the life force again. I think that these also were tests-were we able to gain enough truth in the simulation of this greater revolution without destroying ourselves? Yes. Can we see the other side of this coming revolution and not be afraid since we understand the language of the gods now? Yes. This is a great time to be alive. After talking about these things, I went to get the mail. The main thrust of our conversation revolved around the Copernican revolution, and the learning machines and childrearing box of Skinner that he had put his daughter in-as examples of these two aspects of reality (the practical now and the meaning and transcendent). I pulled the mail from the mail box and there on top was a catalog (addressed to my mother) with a stark golden picture of a mechanically constructed device with a small golden sun in the center. I was in awe again. Across the top it said: "LILLIPUT" in large red capital letters, and below that much smaller in black it said: "Investments in fine mechanical art". Then the whole front of the catalog was bright white with the clear picture of the device in the center. Under the device it said: "NEW! Orrery Planetarium K. Moser, London Limited Edition" in small letters ("NEW!" In red). Then the description began: "As spectacular and graceful a planetarium clock as you'll ever see! Ever since Copernicus's astronomical discoveries in the 16th Century, he gave mankind a new perception of his universe. His models of the solar system were copied and expanded by many. It would have to be obvious that clock makers would be drawn to the considerable challenge of building working and accurate mechanical reproductions of the heavenly movements...". I immediately went upstairs to write about that one, and in the middle of writing about that one aspect I found the Volume 9, No. 9-10 (2002) issue of the Journal of

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Consciousness Studies in my mail too. I opened it and It was about William James' Centenary Essays on "The Varieties of Religious Experience"! On top of the journal in the plastic bag it was mailed in was a card with my address and subscription information, etc. Usually it is one-layered, but today as I was going to toss it onto the pile of junk mail for disposal I noticed it opened and was folded over with the words: "Important: Subscription information overleaf" in red and blue (normally there is no color on the address card). Inside was a description of future issues and a subscription-renewal form. There also was a note stating: "Please accept our apologies for the delayed publication of the enclosed September-October double issue. November and December (regular issues) will be published on time." As a way of explaining the late arrival of this issue. I would not have received it right now if it had not been late. Inside, on the facing page, were two pictures of the first two issues forthcoming in 2003. I noticed that the first one pictured was a double picture of B. F. Skinner, with the words: "The Double Life of B. F. Skinner" under it! I couldn't believe how uncannily this event was aligned with what I had just been talking about-the double aspect of B. F. Skinners work! If that was not meaning enough, I read the description beside the picture: "The commentators include Julie Vargas, professor Skinner's daughter, who corrects some of the misapprehensions about her fathers child-rearing regime. To be published in January 2003." All this came here in the mail (judging from the mailman's knock and the time) right in the middle of talking about these very things. Additionally, if you analyze the "LILLIPUT" one further, I was talking about how you can look out in the world and see patterns echoed on smaller scales of much larger patterns of the universe. I had been talking about these patterns reflected on the world stage-in events happening in the world, and in our symbols (like lilliput was a legendary small world just like our own only smaller). The device on the cover was a small model and symbol of the larger solar system—a "Lilliputian" model—in just this sense. This is how the natural world is too—in the symbol of the Lotus flower, or the holy tree of the universe of the northern Europeans, or a Christmas tree. The solar system itself is a symbol for teaching the true nature of things from the creator in the same way. We must ratchet ourselves up spiritually on these things-they are a ladder to "Heaven", or the understanding of "Heaven" in the terminology of religion.

4) At the Toward a Science of Consciousness 2000 conference in Tucson, I went to a poster session with a cheap T-shirt from Wal-Mart that had a surfer coming through a circular wave—the end of which had been stylized into a dragon's head curling over the surfer. It looked like a surfer surfing through a water-dragon coiled around him. I walked up to a poster there by Jordan Peterson (who I had never heard of before)

and there were diagrams of circular dragons of almost the same shape and design as that on my shirt. One of the reasons I liked the shirt was for the symbolic significance of the picture—which was what Jordan's whole poster was about. The poster was about the symbolic significance of a "dragon of chaos" and the "heroic personalities" in the center of this oroboros-like symbol. I am a surfer, and I started out surfing on Lake Michigan. One of the qualities of surfing the lake in Illinois is that it is nearly always stormy or cold when the waves are best and can be surfed. I was always alone when I went out, although there were a couple of people here and there on the beach a few times. The waves are not smooth and evenly spaced like in Hawaii or California. It is much harder to surf on Lake Michigan. It is harder to paddle out in the face of a constant onslaught of waves, and it is harder to find and predict which ones will be breaking just right, and to paddle in at the right spot. It is an intensely intellectual as well as physically demanding adventure. The rip currents are much worse than anything I have ever seen in the ocean, probably because the waves are non-stop. You have to paddle out up the beach a ways from where you intend to surf after studying the sand bars, because by the time you paddle across the short distance to the waves, you will be about a hundred yards down from where you started from the rapid cross-currents. The sandbars are also constantly changing by the hour. The sound is deafening and non-stop. Once I went out with my brother, and we could not hear each other unless we were shouting a foot or two away from each other out there. When you do finally catch a wave, you feel like a hero even though nobody else is there to see it. It feels like a miracle. I definitely felt heroic doing that, and that was one of the big attractions to surfing-to have finesse and skate over the waves of that cold onslaught of death-dealing confusion, having selected the right path. I bought the t-shirt because it captured this idea metaphorically, and I had thought about how this idea and this activity of my youth related to life in general. These experiential factors, in all their complexity, had their meaning involved in that day when I met Jordan Peterson. Furthermore, I had written of the oroboros myself in the paper I had sent to Brain and Cognition I mentioned earlier, and in a paper I wrote as an undergraduate before that. I already saw meaning in it. Additionally, I had found a one-of-a-kind, handmade "Sun" pendant on ebay-with a spiral center-and I was wearing that. He then explained that sun symbolism was very important to his ideas too. We talked for a long time and there was remarkable and unusual coincidence to our ideas as well. Finding the shirt was meaningful in itself, then meeting Jordan amplified these sentiments that were experienced. There was a common unity to our ideas, and to the timing and symbols in our respective intellectual pursuits, and in my t-shirt

and necklace I was wearing. I had never seen anything like the ideas in Jordan's poster before that.

5) As another shirt-related experience, I went to the store a couple weeks ago wearing a bright blue shirt, with a fluorescent green dragon on it in a sort of structural framework pattern across it. On the way out, I turned the wrong way in the car, and cut through some space in a parked car line to get back to where I wanted to go. There directly in front of me was a bright blue car whose only motif was a fluorescent green thick stripe snaking sharply back and forth across the hood and down the side of the car-the same highly unlikely blue and green colors as my shirt. I had been thinking about the garish colors of the shirt before I left, and almost changed it based on "social" considerations... Additionally, I had never seen a car even remotely painted like that before. If I had not both turned the wrong way away from the exit, and decided to cut through a line of cars, I would not have seen that car directly in front of me. All of these elements add up to an astronomically rare convergence of events related to my experiences and thoughts with that shirt that day-almost like an echo of patterns. The part that really makes it interesting is that I had bought the shirt because of the dragon motif and the fact that it was green like the code in The Matrix movie, which Neo sees in the end with a sort of x-ray like vision. The shirt depicted a dragon as a sort of framework outline or x-ray of a dragon. I had been thinking that the dragon on the shirt was a good symbol of how studying consciousness shows that the universe itself is formed and shaped-gets its structure from-consciousness, or the unity we experience as consciousness. X-rays show that our bones give our bodies shape and structure, and in modern science we also found out that these same bones produce our life blood. I also had found a book once called The Universe is a Green Dragon (Swimme, 1988), and it had always stuck in my mind that the author had selected "green" to specifically state in the title. All of these things converged on the shirtmeaning for me, and to see it echoed out in the world upon wearing it was a metaphor for exactly the truth I saw in the shirt. These things are so complex on many levels, it is easy to see how an individuals rich experience of an event is the only way to see this other order in the unfurling of events. The exact same events might have different meanings for different people. They are intricately woven together like Celtic knot work drawings. Certainly science is blind to these types of relationships, and so are we most of the time. You really need to be aware of and able to tease out and analyze your own thoughts to see these things, and that is very difficult to do. After you do it for a few years as I know from experience, it becomes second nature-a whole other world of information swirling around our conscious thoughts and experiences.

- 6) Another car example occurred (among others) when I was on my way to a writer's group meeting where some aspiring writers met to critique excerpts of each others work. I had brought the first few pages of my book with me for that purpose. I had noticed several meaningful events as I drove to the meeting complexly related in a low-probability and coherent way to other things in my recent experiences. It is very difficult to translate the patterns involved into words, because the perceptions and meanings are intricately interlocked and non-verbal in the human-language-use sense. I passed a white truck with a large Olympic torch on it, for example, thinking about how that related to the impetus and fire of life in civilization that I had been considering on the way there. The truck was for the special Olympics. When I arrived at the meeting, one of the ladies, who appeared to have some developmental challenges, was wearing a special Olympics t-shirt. I had been talking to my wife a few days before about always having wanted to do a gold-leaf sunburst on the hood of my truck with real gold, or at least to paint gold flames on the front of it. I had considered doing this since I lived in Memphis years before. It came up then because the paint on my car hood had been oxidizing and looked like it needed to be repainted soon anyway. I pulled up in a parking space at the meeting next to another white car-a Chevy Corsica-and was amazed to see a solid gold painted flame motif. The front of the car was gold, and you could not see it driving up to it across the rows of cars it was parked amongst. I had pulled up to the first good space I saw. There were other spaces too, the lot was mostly empty. I happened to pull up into that one. It was not until I had shifted the car into park that I noticed what was parked next to me. I have never seen a car with that motif before in my life. It was not a modified car. Additionally, I was driving to the meeting for the first time—looking for the street to turn down-and noticed a truck pulling out across an intersection as I approached a red light. It was an "Omega Cabinets" truck that happened to be pulling out from where I was supposed to turn. It reminded me of "alpha and omega"-the Greek letters for beginning and end used to refer to God. I had been thinking about that concept in relation to my book. I also realized later that the Olympics, those letters, and the sun-god (sunburst motif involving a vehicle-i.e. "chariot") are all Greek.
- 7) Some of these are really mundane too—such as one which happened on 12/07/02 about 6:30 AM. I had been driving home from overnight work and stopped to get some gas. I looked at the windshield while the gas was pumping and noticed that the icy crystals partially impairing my view were now almost completely melting into tiny beads of water. I had recently treated the windshield with rain-X after a long time—

partially to make ice come off better, and also to improve visibility because the windshield wiper was messing up and I didn't want to use it. I touched the beads and rubbed and watched the water snap back into drops. I was really glad I had put Rain-x on there at that point. I drove away and there was no traffic out. I drove alone up to the intersection of 14 and the road going south towards South High School in Crystal Lake where some cars started to get grouped because of the red light. A few cars came and started to collect in the turn lane next to me. The car next to me was a white neon (I was in a white Saturn) with the license plate "Rain X 1" that I only noticed as it turned away from me when the green arrow lit (I was in the straight-ahead lane next to it). That one had some impact because it was essentially the first car I really looked at after the rain-x thing at the gas station about 2 minutes before, but was pretty low in intricacy-that's why I say it is more of the mundane type. I have also noticed that some of these are more intricately interwoven if you just think about them more, and pay attention to them more. Timing, color, shape, words, etc. ALL can have these relational patterns to them. Here it was color, timing, and words.

8) Probably one of the best recorded, and one of my favorite, events of this sort was something that happened at the Experimental Aircraft Association's 50th anniversary Oshkosh 2002 Airshow and Fly-in event in Oshkosh, Wisconsin. This was an easy one to see and translate the nuances of-to at least give an adequate surface account of the more deeply integrated meanings I saw in these things. It is a very long description tying lots of elements together. I am relaying it as a model for how reality is constructed beyond space-time, held together by ultimate unity. The last time I had attended the airshow was in about 1987. I drove up there Saturday, July 27, to meet my Dad who had been volunteering there. I was staying with him overnight at the camp site for Barrington Chapter 790. We drove to get dinner later at an Italian fast-food place near the Oshkosh airport. I pointed out the Seagulls on the way to dinner that were flying around-commenting on what good flyers they were. Dad and I discussed coincidences at dinner that evening. I talked about how I had driven through Knoxville on the way home from visiting Ron out east in Pennsylvania from Memphis. The battery in my truck had given out on me at the Smoky Mountain Knife Works store, which we had turned off the interstate to visit. We drove towards the Smoky Mountains after someone from the store jumpstarted our car to get a new battery at a Wal-Mart there. That's when we saw the huge mountains. It was mostly clear, but the tops of the mountains were shrouded in clouds. It was through an unusual set of circumstances that we later moved there. We had no thoughts at the time that we would ever move there. Back in Memphis, I later found a job with FedEx and a friend of mine that I worked with traveled to

Knoxville often to go hiking and camping there with a church group. Dad talked about a similar set of circumstances and events had led to their moving to Fox River Grove when I was one year old. Dad said it was like it was "preordained" for them to live in Fox River Grove. We talked about coincidences in general and my book too. I talked about how I had been writing it for about 9 years, and that I had brought it with in order to work on it that night (I had left it behind on the seat of my truck in camp). After dinner, Dad said he wanted to go see this really funny comedian at the Theatre in the woods on the EAA grounds there. He had seen him there last year and really liked his show. We drove over there in the EAA Ambassadors golf cart to see the guy named Rod Machado-who was extremely entertaining. After he finished, having no idea who was next, we sat and just watched the show a bit. After a little while, a lady onstage introduced a guy named "Steve Weaver" who was going to give an introduction talk about the next person to appear onstage. The next person to appear was to be Richard Bach-author of Jonathan Livingston seagull published in 1970. Later it was made into a movie (1973). "Weaver" was my nickname when I lived in Fox River Grove (where I saw Jonathan Livingston Seagull when I was 9 or 10 years old). My best friends in grade school called me that, and I liked the name. Once I had a "Wearever" pen in school, and modified it by scratching out letters to say "we aver". I had lived down the street from the "McCarty-Weaver" funeral home in Knoxville TN on Western Avenue. Later, before we moved back to Crystal Lake IL, the name was changed to just "Weaver" on the home. (Here is an example of how these things weave together, and happen continuously. I, just now, after writing the previous sentence (12/10/02, 3:00PM) saw on Amazon.com a review of Jonathan Livingston Seagull. I saw it when I went online to get the dates for the original publication and the movie production. I currently live in Crystal Lake, IL. I will reproduce the review here: "Listen to your Heart, September 25, 2002 Reviewer: A reader from Crystal Lake, Illinois United States. I find more meaning to this great book every time I read it. It makes you think about what is important to you, and how important it is to pursue your dreams, no matter what others think you should do or become. Read it over and over." There are 193 reviews on the page right now, and they show only the first four. This review was the last of the four. I saw it by accident, and the meaning is enhanced by the large number of reviews too. The fact that these KEEP happening makes it extremely difficult to relay them entirely or completely. It is up to the reader to realize that things are woven together to form reality from beyond space-time in the future and the past. Reality is like a dream—the landscape of your emotional drives is reflected in reality in the same way. In times past, it seems to me, others have called this "WILL"-such as Arthur Schopenhauer .) My

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best friend at the time was Tom McCarthy. He lived on the same street as Scott Renda who gave me the name, and Mark Durham my other friend. I used to sleep over at Tom McCarthy's house. Originally the moniker was the less complimentary "Weaver the Wart head", but the wart head part was eventually (thankfully) dropped off. Living down the street from that funeral home (ostensibly where people go when they ascend to heaven-heaven is the real "funeral home". At least that's how I saw it) and next down the street was "Kings Castle learning center" (there was a castle in Fox River Grove on a hill in the middle of town, and a smaller one echoing in look and construction the larger one closer to where we lived.) Across the street from that, at Raj Road-the road that led up the hill to our apartment complex-was "Creation machining" fabrication and machine shop. I had the steering on my 1970's War Eagle minibike welded there by a super-nice southern gentleman for free. All three were right in a row, down Western Avenue (the road between Knoxville and Oak Ridge TN) with nothing really between them. To get back to the original thread, Richard Bach was introduced by Steve Weaver. I was stunned. I had no idea he was going to be there. I had seen the movie and read the book, and also read "Illusions". I loved those books-they had a big impact on me. For example, recently I had realized that Stephen King (another one of my favorite authors) used the nickname "Richard Bachmann" for some of his novels. I liked one for the soaring spirit of unlimited possibilities, and the other for pointing out the dangers and pitfalls of reality and evil that we must overcome in the process of getting there. The two aspects of reality—similar to that which made us: the heroic soaring to higher levels of meaning and creativity in the will of life in combination with the destruction and elimination of the misleading, constrictive, destructive, and rigidifying influences of fear and selfishness. Beauty must prevail over chaos and horror. Fear and destruction assail us while we are (life is) young, while we are blind and cannot move or speak. It is an exquisite chastisement that also eliminates the base metals, the flaws, the impurities, so that we can shine the pure true light of the universe when we realize fully who we are and where we came from. I had thought that was really poetic weaving together of those two book-author threads of meaning for me too. As you can see, by simple extrapolation, there is a huge superstructure of these woven meanings underlying reality for all of us. At the most basic level, all these meanings originate in the path diagrammed in chapter 6. In grad school I bought the book and read the story again. It had much more meaning now that I knew so much more (like everything in our lives). It had more meaning now in retrospect. I was very excited and surprised to see Richard Bach there in person. On the way to dinner, I had pointed out a seagull and commented on what good fliers they were and that there were so many around there now.

There are a lot here now in Crystal Lake too-and there didn't used to be. There is a lot of history, a lot of information distributed over the time and space of our lives, which makes it almost impossible to convey the emotions, impact, and beauty behind the synchrony of patterns of these organizations of events in consciousness. I am trying to include as much as I can, but the actual experiences and the TIMING of them in reference to what you notice and the emotional "flags" on these attentions cannot be conveyed adequately. We can only hope to try to begin to see them ourselves, rather than to be convinced by a defacto explanation of the experience. These could be called "miraculous gifts of God". Gifts that, until now, were inexplicable and largely invisible. I still don't even consciously recognize all of them of course. These things deeply affect our moods and choices in life. This is why it is so important to attend to your own emotions and even your own speech very closely. You need to do this in order to let the "force" or will of the life of the universe flow through you-to become "one" with it so to speak. Richard Bach began his talk with some "coincidences" that led to his flying and his career. He happened to meet his flight instructor at an archery range, for example. He said at one point how flying is like trusting something you cannot see. Richard Bach said it took him 9 years to write Jonathan Livingston Seagull like I said to dad earlier about my book. Mr. Bach said that he had stuck it away and forgotten about it. He said that "time does not matter to ideas", and that ideas require perseverance. He was rejected 18 times by publishers. He said we must rely on coincidences. He said a great idea "finds" those who are to present it. The pictures in his book of seagulls were from a guy named Russell and he found them by sheer coincidence (guided by forces invisible to the eye like flying). My book is all about coincidences. He mentioned that his first book was "Stranger to the Ground" back in 1963-the year I was conceived. He really struggled at first, that we need to "find what we love" and follow it regardless. He said "You will have a terrible time, but you will love it". That is like the journey of life-bound and at the mercy of the dominatrix of natures fury like carbon under ground being made into a diamond. Other things he said were that his friend "Donald Shimoda" used to be the savior of the world but quit. He said he knows everything about the world and how it works-he deprogrammed himself. Richard said to "follow your highest sense of right". He is writing a series of books on ferrets now-a whole new world rising "like Atlantis from the sea". The ferrets fly small planes with cages that will "get there on time no matter what" (sounds like FedEx). All these things roughly echo my own life in many ways: following truth, what you love, and have a really hard time and be happy. I have also had a lot of trouble getting things published too. The ferrets in the Bach stories have some control over the weather, which sounds just like my book and the

effects of consciousness on the events and "winds" surrounding us. He said he HAD to write "Seagull" and "Illusions". He wanted someone else to do it, but it was him. I felt similar things about my book and others I have yet to write. Dad and I had talked about that same thing before Richards talk-I said I was the one to write this stuff here. After the "official" scheduled talk, I went up to Richard to talk to him and get his autograph. I told him that I had brought my own book and that it was out on the seat of my car right now. I told him I found his talk coincidental, and inspirational. I told him about my not even knowing he was going to be there, and I told him THANKS. This is already very long, but there is more. After the sound/camera men left, and he had pulled up a stool and said that if there was anyone that wanted to move close to hear him and stay around, they could. He took more questions and talked at length. Someone asked him about the motorcycle/airplane connection that seemed prominent among aviators. He began to talk about his father being a strict old German who said he couldn't get a motorcycle, but he did anyway. It was a Honda and had a broken speedometer. My current bike (then) was a Honda with a broken speedometer. I had been riding it for a while with the broken speedometer. I don't really like arbitrary rigid speed limits. When I ride off-road, I guage my speed by the frequency of passing things, by the sounds of the engine, and by the conditions at hand. An intimate knowledge of things-from the tires to the forces and angles on the ground—is better than arbitrary speed limits set by egotistical legislators, or a fearful public, who are not seeing what you see. Anyway, I see this as relying on the invisible or abstract rather than the contrived speedometer. It was therefore a greater coincidence to me than it seemed on the surface that he spoke about a Honda with a broken speedometer alone. Later he said that he really didn't ride motorcycles any more. The one motorcycle he did speak of was a Honda. I had intended to ride mine up there but decided not to at the last minute for a number of reasons. Richard Bach went on to say that we are "part of history right now" as we pass our information down the line. He discussed Charles Lindbergh's book "WE" after that, and discussed his being cast out by the very society that idolized him. I had recently been reading about Charles Lindbergh and his being ostracized as a result of his speaking out against the war with Germany. His baby was even kidnapped and never found. He eventually asked to be buried as far from civilization as possible in Hawaii when he died. I had been thinking about this fact quite recently too. After I got up to go look for Dad (he had been ready to go back to camp and was waiting in the golf cart) I walked straight out the back of the Theatre in the Woods. It was dark and there was a blue glow in the grass. I walked over and it was one of those snap-to-activate light sticks in bright blue. How could you lose one of those? There was nobody around at all. I found Dad and

took the light back with me. Seeing Richard Bach alone was a neat coincidence. Everything he said and all the surrounding events were also meaningfully interwoven. I had built a computer and installed blue lights in it—I love blue lights—and I had a blue neon license plate frame too once. Later, I put a blue light on the license plate in Tennessee, but a police officer made me remove it because of some law there. I had been thinking about putting it back on here in Illinois. This is a long and complex event that gives some idea of the panoramic nature of these things-to the extent that I can capture the idea of them in mere words. Experience of these things allows simultaneous effects from various other areas of information. Words are serial, so you lose some details and some of the timing-effects which support such interpretations beyond the consensus/daily survival task interpretations of the lower brain centers. Creativity and transcendence of those lower more rigid patterns involves bringing enough information to bear to discern alternate paths and options from shared information from diverse experiences and deductions. Phenomena that involve crossing over of perceptions or analogies reflect the underlying unity of things beyond space-time. Synesthesia (a syndrome of sensory crossover-"seeing sounds", etc.) is an excellent, if extreme, example of this kind of process of seeing something seemingly unrelated as now fundamentally related to another thing. With this creativity within the boundaries of necessity and possibility comes survivability. We see it in the patterns of coherence of the universe and we see it in our lives. We are the chariot of the fire of life in the universe in our consciousness. What religions call God grows inside of us too. There are good reasons, sound reasons, why religions all have a haunting familiarity to them at some level. They all seek to express the ultimate laws of the universe in order to understand their world and their destiny. You see echoes of the process of evolution in the rituals and directives of religions. Monks flagellating themselves, and ascetics laying on beds of nails or burying themselves are transcending the animal brain for something higher. They play the role that the harsh mistress of evolution played in shaping us with pain and death as well as rewards to see truth and life. Religions are the perceptions of patterns transcending lifetimes. True leaders should naturally be spiritual in this transcendent sense. Deep themes echo in the most unfathomable ways to most people. Once you learn the patterns, they become clear evidence for the path of life.

9) I had noticed diamond shapes everywhere in the same way in the last several months (December 2002 now as I am adding this example) since I had been staring at and thinking about those concepts a lot while writing my book. I will write about one of those events here, and a few more really good diamond ones in the chapter on "Perceived Meaning

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as a Lens to See this Universal and Primary Force at Work". On 12/07/02, I had driven to a meeting to give a speech about these larger patterns and their importance to a group at a library in Naperville. Illinois. On the way there I saw a truck engine with no trailer driving in the same direction as me in the other lane. I noticed as I passed, the exact shape of the diamond of the universe diagram of my book on the door of the truck with the word "Dawes" inside it. The truck was from Milwaukee, or at least the company was. I began to look for more then, and that night at work (Kohl's, where I am a night stockerheadquartered near Milwaukee) was thinking about diamond shapes I saw in clothes there and other places (candles, etc.) at the store. I went home and went to bed on the morning of 12/08/02. This one happened on 12/08/02 at about 3:30 PM. I woke up at 3:00 after working through the night at Kohl's. I went downstairs and briefly looked through the mail on the counter, and then saw the Sunday paper laying across the room on a table by Dad's chair. I walked over and stuck my hand straight into the middle of the paper to look at the ads section (thinking about looking at the Kohl's sale flyer, and other ads). I lifted from where I had grabbed the paper and looked in. There was the cover of a flyer for "Ulta" salon, cosmetics, fragrance. The first thing I saw was the large diamond-shaped boxes pictured. One was a green, diamondshaped coupon you could cut out. I never saw a diamond-shaped coupon before. It would be interesting to get some hard statistics on the frequency of these sorts of things. Computers could keep track of this kind of thing pretty well. Anyway, it said "give the gifts that dazzle" and showed a picture of a blonde woman opening a present. Right next to the diamond it said "enjoy". When I opened the flyer, I noticed a diamond right on a row of candles was the next one, and only one on the next two pages. This one even had a burst of light in the top where I put the light of consciousness or sun of meaning in my diagram! In the middle of the diamond, the words said "free gift". On the next two pages, there were several diamonds. Two with blonde women inside them framed in blue and green, one green one with words, three were actually part of the products pictured—diamond windows in boxes for three matrix gift sets, then three more by some hair dryers denoting features or next to the words "as seen on TV". The next two pages also had two "free gift", and lightburst at top diamonds-one with a candle pictured overlayed on top of it even-by an ad for color bowl candles. Candle motifs continued by the other diamond on the next page, even though the products were not candles there they had pictures of candle flames on them and the words "sultry nights". There was another lady with red hair in a diamond under some "Ulta Formativ" cosmetics on those pages too. On the last page, there were blue diamonds behind all the products pictured. My model is a blue diamond shape. That one was really stark and intricately woven-not to mention that it was the first thing I saw as I opened the paper. Later, I relay some other diamondshapes I noticed earlier in TV shows and other places which expand on this theme. I have so many thematic examples, I am just picking out a few representative ones for each of these. (See the "Meaning as a Lens..." chapter for more.)

10) Here is One more quick one that just happened while I was working on these examples. I worked at my night job on 12/11/02 and brought a small book I was given as a gift that day about the Hope diamond at the Smithsonian. My parents had gone to the Smithsonian museum there while visiting my brother in Maryland over thanksgiving. I read it during my breaks and lunch. I never read a book there at work beforeit just worked out that way since it was given to me then. The next time I worked was on 12/13/02. That night, I had wanted to bring that book again but forgot it. I sat down at the table and the only reading material there was a "In the Nick of Time" catalog for Christmas by Avon. Usually in the past, there had been a lot of papers and bulletins from the company on the table to read, and all the latest Kohl's Sale flyers. Instead, there was the Avon Catalog. I opened it and saw a lot of gem imagery in the catalog which seemed sort of meaningful, but then I saw that in two places models were holding a large blue gem across the pages in their fingers really large on the page. In both places it was the most salient feature on the page. Both gems (though lighter colored and maybe not actually diamonds) were blue and of roughly the same shape and overly large size as the Hope diamond.

These examples, and many even better (more complex) ones, show that there is something more at work in life with reference to individual consciousness. The patterns between mind and the wide world around you are much more aligned and related than previously thought. It is not all just random. I have noted cosmic events, world events, historical events, and individual encounters which have uncannily aligned with the contents of my consciousness in their form, meaning, and timing. Individual consciousness grows to reflect the consciousness-like organization and transcendent unity of the universe. Some greater purpose or meaning that ties us all together—just like consciousness ties together the widely separated areas of brain function and builds meaning out of the operation of widely separated areas of the brain over time. This constitutes a larger "binding problem" that is actually an indicator of the role consciousness plays in the universe, and it most importantly explains why brains developed consciousness. We cannot understand the relationship of consciousness to its place in nature without attending to these larger consciousness-like themes running through the universe in Anthropic Cosmology, linguistics, biology, literary devices, etc.-which constitute the patterning of the "Logos Echo" (explained in a later chapter), and illustrated by the spiral shape. These things

will require a new way of looking, using the nature and origin of consciousness both as our observation point and as model of a primary process of reality which shows us how that reality came to be and tells us why it looks like it does.

Our words are interesting and tricky things in their effects on us and their mechanics. Our brains developed for many millions of years to reflect the operation and organization of the universe before we ever developed our ability to use language. That is a key point-we need to consider what the world would look like, and how we would be motivated before we ever learned to shape each others behaviors and thoughts in the new social environment of language conditioning. We developed our ability to perceive meaning before language, and we lay our language over this meaning structure already in place. We need to ask ourselves what the natural symbols would have said to our minds and motivations back then when language was not such a large factor in everything, when a man and his experiences in a natural setting spoke secret nonverbal volumes about the path of life and the nature of reality. Today we carry around an idea of what others would think of us, as if they were watching us, and this has even been studied as the idea of "salient private audiences" in psychology (Baldwin and Holmes, 1987). We think in words as if preparing for how we will explain ourselves before these audiences. It is difficult to imagine how our brains might work if we did not do these things constantly in our behaviors. They might fall into an invisible larger organization of patterns all on their own. I think this ability to tune into and flow with the larger patterns has been slipping away underneath the blanket of socially-mediated verbal behavior. Additionally, this new environment has been selecting us to follow its own set of patterns. It is interesting to look at language against the panorama of history so that we might be better able to transcend those aspects of our thoughts and conceptions which are a result of this special environment of language in humans-it has become a niche of sorts. Like all niches, it has its purpose, but we must be ready to transcend it and jettison its framework to move onto something greater. Brains reflect nature, and words reflect what is reflected in our brains-whether our brains are right or wrong. Then we have a new environment of words, of concepts laid down and taught, and a new "karma-like" cycle of the future created by them. Construct the right words, and you can direct others to do what you want. Words enslave by setting up artificial karma-like cycles which can totally affect the path of your life if you are someone who perceives the confluence of meaning and operation of these larger patterns. If your brain tends to be an organizational center around which events happen, taking twisted information to heart can produce twisted results in the world. This sets up a feedback loop of destruction for those aspiring to know the creator. You begin to carve up reality and believe in this loop rather than the greater realities beyond it. This is a huge danger of inaccurate information, or incomplete information. These are all intellectual traps as dangerous, or more so, than any of the more explicit environmental dangers of nature.

We must learn to see the truth through the wilderness of words and concepts with their lower purposes. We must cut through the walls of confusion. We must become the masters of our own destiny to survive. As Winston Churchill once said, "we shape our buildings, and our buildings shape us". Everything depends on the perfection of our intellect, the perfection of our knowledge, the perfection of truth. We watch television and learn what the world is "like" automatically-whether verbally or nonverbally. These ideas become the foundation of all we learn and the grid by which we filter further experiences. Even those experiences away from the TV experiences. Once again, our brains evolved before there was TV. We cannot help but act as if it was reality. Later, we have the emotions installed by those events by which we interpret the world around us. Like any technology, it can be used for good-to increase truth and freedom in the truth--seekers-or for evil-to set up patterns of destruction (even unwittingly). Overall, its potential to stimulate us on to higher levels of truth is greater than the potential for enslaving us as our level of truth overall increases-just like the dynamics of any other niche an organism might find itself in. When we have enough information to realize that there are all sorts of motives behind the things and ideas we see portrayed on TV, we can mine the veins of gold-stripping away the useless material that comes with it. Television shows are constructed to have messages outright in some cases-as in the series "All in the Family" for example. We think these messages are so real, that charities sought Sally Struthers as a spokesperson to get financial contributions on this basis. Advertising may not be the manipulative part of television. Advertising, and all the various freely devised products and fads we might think are useless in a society like ours may actually be serving a higher purpose in the information and meaning they allow to flow. They are spiritual things-even if they are cheap and have no real use. They still have form and symbolic attributes. The picture they paint about the nature of events and forces at work in our minds and in our lives is enlightening. Giving people what they need or want most deep down is allowing the divine hand of this constructive unity to work-either in the building of society and practical use of these things, or in the communication or meaning they facilitate. It is easy to see how these ideas might be important to preserving civilization and its future, and that is the most likely explanation of why they are coming out now in our civilization with information and the accumulation of knowledge at its core.



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"I do believe", said Alice at last, "that they live in the *same* house! I wonder I never thought of that before."

> --Lewis Carroll Through the Looking Glass

"Two roads diverged in a yellow wood and I, I chose the one less traveled by and that has made all of the difference."

-- The Road Not Taken by Robert Frost.



CHAPTER 3

Glial Cells: The missing Dark Matter of the Mind?

In this chapter, as we follow the "rabbit" of glial cells down the "rabbit hole", I will begin to cover more technical aspects of the relationship between consciousness and biology. Much of the material in this section is from papers I wrote over the years at Illinois State University, Emory University, and several attempts at publication. I had sent the 1994 glial cell paper to Francis Crick at the Salk institute in California, and he generally liked the idea-especially the idea of meaning (see chapter 4). Others have seen it (University of Memphis, Institute of Noetic Sciences, etc.) as well. I feel that a better introduction of this topic, such as that in the previous chapters, is essential to the understanding of the topic. It is a total change in our world view, and if you do not approach it as such, it cannot be adequately understood. A total change in world view cannot be adequately covered in the brevity of a "journal style" paper. It takes a lot of time and space to direct your consciousness into a new vantage point. As these truths become more unavoidable, it becomes easier to explain these concepts. Even as recently as 10 years ago, there was not enough scientific evidence available to corroborate this glial cell theory. There are mountains of evidence from many different areas converging on this field. This is an avalanche of coherence from the future re-interpreting everything. While the technical details of this idea must come from experimentation, the type of biological system needed to give rise to consciousness must logically follow the general ideas and problems covered in this chapter. This will contain more of the experimental scrutiny of the details of neuron-glial interactions. Although there is almost no data in the experimental literature directly testing behavioral effects of glial cell

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manipulations, or the timing and coordination of neuron and glial states in vitro, there are studies of tissue transplants, disease, development, and manipulation of brain tissue that point to the role of glial cells in brain function and therefore behavior and consciousness. More and more research data has been coming out recently which is predicted by this theory.

Glial cells give life to neurons. They are like the animator of the language of neurons. Neurons are the brain-based language of the universe. Their role may involve DNA as simultaneous transmitter and meaning-giver ultimately via the connection of all DNA back through time in the original gametic cell. The brain, and the whole body arose from this unity. If you remove the dimension and barrier of time, you can even go back to the origin of the universe to find the connection of all things there. DNA molecules in a body and brain may all actually be the same thing, with unity beyond the present time which we normally perceive. These things are literally connected if we remove the arbitrary and subjective constraint of the duration of a single life, and expand our view across time. Within a life, we perceive these connections as meaningful. These are actual workable analogies and metaphors. There is real information there related to the type of information repeated everywhere in the universe. All adaptation and survival involves memory--a bringing together through time and space of phenomena in the world. In this theory, consciousness is based on processes similar to Sheldrake's idea of formative causation (Sheldrake, 1981). The logos echo, universal-unity-pattern principle introduced earlier is similar to the idea of formative causation patterns in organisms, except that the "morphogenic fields" of that theory are subsumed under an overall force which acts on the probability of all things in the universe since the beginning of the universe, and through which forms echo that point collectively to this unity in their meaning as the most basic law of the universe. To an extent, it is useful to conceptualize meaning as the future reflected in the present or as the beyond-time reflected in the present (also as unity reflected through space). In the Logos Echo of Unity chapter (chapter 5) this is covered in detail. The theory of Morphic Resonance (Sheldrake, 1981) seeks to explain how patterns are perpetuated, not how they are originally selected to follow the forms they take, or the fact that there is an overall pattern and direction to forms. One aspect of that theory is that similar species (with similar DNA) share a pattern-learning connection without regard to separation by space. A similar idea of connection of cells via DNA similarity to each other within an organ such as the brain can be extrapolated from this. In the brain, cells have exactly the same DNA. This would intensify the effect Sheldrake writes about, except that here it comes as a form-affecting life-force from the future—just as phylogenetic similarity of form comes from the other "direction" in our common ancestral history. From another viewpoint, even the behaviors and events that led to the shaping of the DNA itself were the ones that led to the future we have now, when this singular force becomes apparent. It is also apparent that this force working in the other direction from the future could have played a role all along--right to the beginning of the universe. This force

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was unperceived by the organisms affected by it. Unperceived, that is, until they began to gather enough information to begin reading the pattern written in the things of the universe and our detailed history from science. Natural laws and matter were the arena where this force worked before life, especially at the beginning of the universe, and DNA may be the key arena for the effects of this force on biological development. Gene activators may also play a role—where a section of DNA might arise that is only made use of later. "Silent" segments of DNA may be this material. Our thoughts, perceptions of meaning, and theories that we learn from the transcendence of experiences, may be where the future of knowledge reaches back in a similar fashion in our consciousness. As for the DNA, it is everywhere at once in our bodies. In all the cells. Since there are 10 times the number of glial cells in the brain as neurons, even though they are 10 times smaller, there is ten times the amount, and repetition, of the central genetic material in them. Eventually, we should find this to be significant according to this theory.

Like holograms, DNA contains the principles of a whole body even if only in one cell of the body. DNA already is a time traveler of a species--the only thing passed on through the phylogenetic development of life when the body withers. Like the natural laws underlying all the events in the universe. A creation pattern echo from the larger pattern of the whole universe. Body and brain are a model of the universe. The point of the big-bang-singularity origin spread out everywhere as the universe and the point of origin in DNA for us spread out all over the body. Brain and universe share this patterning. Every one of the millions of cells in our body is connected by an immediate common ancestor. Cells begin to differentiate early on, just as natural tendencies or laws differentiated out of the unity of the big bang singularity. Each cell has the same DNA. In a sense, they are clones of each other-which should exacerbate formative-causation effects between them according to Sheldrake's theory. These effects are actually their shared nature and future beyond time. We operate according to larger patterns outlined in the introspective methodology and concrete evidence chapters (4 and 6). In a larger sense, we are all connected by a common ancestor. We all share this greater common origin, but even beyond that we have a future which affects us all, and is the reason for the larger patterns of behavior organizing around consciousness. More on that aspect later, but this should be kept in mind. The development of the universe in its particular form, the DNA in life, and the intellect on top of animal DNA, each one more labile than the one before to the forces of unity, and utilizing that unity more, echoing it over a shorter time period each time, cannot be made sense of and are not coherent except by the powerful future they collectively lead to. We are connected to the whole material universe since DNA arose from it. DNA is the umbilicus conduit to the universe--an unbroken line through time to the big bang. Later, in chapter 5, I will talk at length about the significance of these patterns. For the present chapter, I will focus on information most relevant to the functions of glial cells. This theory unlocks the secrets of brain

tissue as well as the secrets of the world of our universe, cities, libraries, commerce, and experiences.

In order for brains to flexibly and accurately perceive, predict, and react to the world, brains are obviously required to operate in ways that parallel the outside world. We have complex sets of receptors for various types of evidence from the energy and substances in the world in our eyes, ears, noses, skin, tongues, etc. Our brains are the imagination of what the world is like based on relationships existing within sensory experiences across time and space. Because of limited available space in the brain, and the volume of possible combinations of particular instances of sensations and events, brains must operate according to the principles and laws themselves that drive natural events. This greatly simplifies the survival task of brain matter-sort of a biological Occams Razor focused on the most compact way of representing things in the world. It is a good thing we live in the kind of universe where things can be represented compactly-in language, math, or brains. If this was not the case, I would not be writing this. Humans echo the universe. This is the primary pattern of our universe-the logos echo quality discussed in chapter 5. Because of limited space, we need to operate according to these principles in whatever we do involving physical activity. For example, when we ride a bike or catch a ball, we are operating according to implicit laws of physics built into the operation of our brains and bodies. Isaac Newton, among others, must have been able to scrutinize and translate these organizing processes that are so pervasive in our lives that they are normally not even noticed by our consciousness.

Consciousness serves as the perfecter, the change-maker, the adapter and creator of new theories-in consciousness we find the sea of immanent possibilities in things. Just as the universe was there long before life arose in it, we had the physics put into us long before we became conscious of the idea of "physics". Our brain makes (or you might want to say reproduces) these "laws" or principles so that we can exist. The science of physics simplifies and allows us to conceptualize many complex occurrences in the natural world. Calculating a trajectory, or knowing about inertia, is automatic in brains and important for simplifying and predicting the behavior of moving bodies for both science and the brain tissue. This was a pattern important for our continued growth and existence and so it became automatically tooled into the brains of all relevant organisms operating in a universe with these laws in it. Any biological organism that arose in this universe would be shaped by these laws too-until they were reflected in its behavior. Organisms which did not move probably would not develop an operational working code of physics, although trees implicitly portray certain aspects of those physics in the thickness and flexibility or rigidity of the various parts of its limbs, etc. and in those little seeds which spin down and are carried from the trees like little helicopters. Even though they do not move, the information is still somehow reflected in the tree by the fact that it is shaped by these things. The information in the natural laws is reflected in a tree which was shaped by the forces of the universe-the

forces which themselves were shaped by this overriding force working the other way from the future. That force is also reflected in the idea and meaning milieu of trees in their natural environment—the fact that they took that form instead of any other possible form. We can learn many things about the life of a tree, and our world, by experience with trees. If there were no winds which sometimes destroy trees, they would not be strong enough for us to climb or build our houses in and from. They, and many other phenomena of nature, seem so familiar and so readily useful as root metaphors for our speech and symbol systems partially because we were shaped by and reflect the same forces—we grew up together. Our purposes and communications naturally align with the information encoded in these things, because we perceive meaning in them and grew to build on the perceived meaning of our surroundings. Our brains grew to learn certain things from the omnipresent patterns of nature and what they tell us during the billions of years we shared this earth with them. That is how we survive so well, and we probably did this on an individual basis before language. Language utilizes this meaning apparatus. Meaning has survival relevance because of the information it unlocks about the future. Meaning is the relevance of one thing now to another thing in the future, or one set of relationships now to another set of relationships in the future. We live in a universe where meaning matters because matter has meaning.

Since we need to be able to reconstruct accurately and reliably the outside world inside the brain, there should be regularity in some of the processes of the brain to match the universal (and necessary for existence) simplifying rules of the outside world. That is precisely what we see. We see: logarithmic scales in our perceptions (sound for example), only perceive certain discrete wavelengths of light, and have a surprisingly small variety of specific smell receptors and taste receptors for particular biologically-relevant chemical classes. In between these regular perceptual inputs, and some highly organized, somewhat stereotypic, and reflexive motor outputs, there is a place for the organization of theory in the brain--a place for imagination and creativity. Laws and constants of matter and organizing principles in the universe that are encompassed by our brain function are like translations of segments of some sort of "cosmic DNA" specifying world function in the interaction of these relatively compact codes that unify events. To us, these laws are constructed by our brains, since all we perceive is from our brains. They are automatically constructed in them under the influence, and due to, the DNA which holds the codes. We have no way of knowing about anything constructed, or possible to construct, beyond what has been important to the maintenance and progression of our existence. In counter-intuitive quantum physics, Godel's incompleteness theorem (Wang, 1987), and relativity, we find concepts at the edge of our knowledge of our world that demonstrate clearly how we do not perceive everything about the world, even with our powerful science-there is something big that is missing. We even see that our notions of time and space are narrow. Our view of the world is coherent, and internally consistent within our brains survival-adapted portrayal of the world, but it is a facade—a habitat.

The very predictable regularity of the world, within its perceived causal progression of time, allows us to exist and reflect on it. Perhaps we are not just a cork bobbing along in the time stream, but rather need to construct this progression of time in order to exist in a causal, regular, predictable world. Within this "regularity-of-natures-processes" requirement, or principle of development of brains, there must be enough flexibility to allow the plasticity found in learning, consciousness, behavioral flexibility, and imagination. Additionally, there needs to be some sort of "retrograde messenger" in order for subsequent experiences (i.e. reward) to modify the paths in the brain that were operative leading to that experience depending on whether the experience was good or bad. So far, there are many theories and potential candidates for this retrograde messenger, but this has not yet been shown. How can brain tissue working in this manner give rise to the tangible world, and our intangible, unified experiences of it?

At the neural level, the regularity of the world seems to be what we find. Much of the research on the brain investigates which areas of the brain are key operators in which aspect of sensory input or motor output. Pathways are mapped, and the brain of neurons is largely divided up into sensory and motor areas. Certainly death honed these aspects of neural function to reflect relevant aspects of physics for our survival. The processes of neurons have a fundamental regularity to them-they are organized in tracts and nuclei that are identifiable by their connections and functions across organisms. They are the basic regularities of the world--cut and pasted, mixed and matched-to put together a coherent world. Regularities that we can depend on for our existence-like the laws of science which solidified in the early universe (according to the physicists)--which allow the universe to exist. Neurons do not divide and reproduce or drastically change shape, function (i.e., a dopamine motor cell, retinal cell, or Cochlear hair cell), or position. Neurons in the retina or in the spinal cord, etc. have organized and specific tasks. One example from the actual working/perceptual level in the visual cortex is the work of Hubel and Weisel (1962). They showed the regularity of geometric feature-detection present across visual cortex neurons, which also showed, once again, how what happens in neurons does not fit the patterns we experience. The important thing to get from this information for the purposes here is that the information content of neurons is very much separated out and analyzed-unlike our conscious experience. Many examples also exist at the response, or motor, end of brain functioning. For instance, some of the work on stereotypy and the organization of behavior by the striatum for example (Pisa, 1988; Pisa and Schranz, 1988; Romer, 1993). Even though there is a lot of plasticity within these systems, the basic functions of particular areas do not change no matter how much we learn, etc. The area of the cortex dedicated to sensations in our fingers stays in the same relationships-fingers represented next to each other, etc.

Both perceptions and responses (along with body perceptions—pain, pleasure, hot, cold, etc.) seem to be fractionated and represented with regularity

by neurons and neural groups throughout the brain. A scene experienced as a geometric shape moving across the visual field gives a pattern of firing in the cells in the Hubel and Weisel experiment only when an edge of a certain orientation moves across the visual field. That is a pretty specific feature, and yet we see the whole shape and scene, no matter which cells are fired by whichever lines moving whichever way that we see. We can describe the whole scene, and where everything is in the scene, down to each of the individual features which ostensibly might only be firing one class of cells in areas of the brain widely separated from the speech centers. Further complicating these things, verbal categories contributing to our overall descriptions of our experiences seem mediated by specific neural groups at specific places in the cerebral cortex according to some research by Antonio R. Damasio (1994), and others. This poses a problem when we consider the transcendent unity of our experiences, and the central fact of our consciousness. I became increasingly concerned about these facts when I was a graduate student in neuroscience. I saw it as such a huge problem that I began to look for some way out of this paradox. This chapter originally started out as a paper I wrote for a journal back in 1994 with the same title as this chapter. Brain and Cognition reviewed the paper and asked me to make some changes and re-submit it. I could not do that at the time because they wanted "more hard research" directly related to the thesis-which did not exist at the time. There were only a couple laboratories in the world working on glial cells in a way even remotely related to these larger issues. Steve Smith at Stanford was one of these. Interestingly, he came to the graduate school I was attending and I heard him speak and had a chance to meet him there. He was investigating how glial cells might have effects on information processing in neurons. During this time, I reviewed the available literature in a large paper presented to the faculty where I was a student. It was not warmly received (probably because of the unconventional nature of the topic—as several of the professors pointed out to me). The problem is real, and huge, and I kept pursuing it in spite of the things that happened there. This problem has recently been named the "binding problem" by one of the pioneers in the field of consciousness studies--which were just getting started at about this time in Tucson. There is a lot of research that is relevant to the basic problem outlined here. Studies using PET scan techniques implicate widely disparate areas of brain activity as contributing to unitary perceptions (Felleman and Van Essen, 1991). Imagination can bring unified, vivid "perceptions" to our "minds eye" as well-giving rise to the same profile of activation of the relevant CNS neurons according to the PET scan as in the actual experience. We build both our imagined and real worlds with similar neural functionswhether we close our eyes and just imagine it, or actually use our perceptual receptors (eyes, ears, etc.) to perfect and guide our "imaginings" and theory in our actual experiences .

A unique characteristic of imagination is the ability to manipulate and recombine actual features of the world in ways that give rise to scenarios that may or may not actually exist. While neurons seem relatively committed to

producing certain aspects of experience, some aspect of our brain is able to nudge, corral, and most importantly bring together into unitary perceptions, all the organization and details of this activity. Additionally, there is plasticity in the size of "mappings" of neural groups in the brain, depending on usage or activity of these groups. Further, we can use analogies, metaphor, and allegory—which is amazing considering the dedication of neural groups. My theory is that these literary devices also use some of the same neural groups as those which actually construct the real thing (real experiences) on which the metaphor is based. These "tree" places, or organizational configurations underlying the experience of a tree, are used as prototype for the comparison in the metaphor of "tree of knowledge", etc. We can find an analogy in natural forms without language too-which would ostensibly then use some of the same neural equipment as the experience we are drawing the metaphor from. We can say to someone "this concept of phylogeny in biology is like a tree"and they will draw on the known relationships and characteristics of trees to apply to and understand the new concept. How is this possible? How do we recognize these things and their constellation of features to transfer that constellation as the distilled essence of another thing? Who is doing this? Why are metaphors possible? Research needs to be done here—perhaps a PET-scan of someone viewing different types of natural and literary metaphors.

Since neurons seem to provide the raw materials for the more rigid world models on which we draw, involving stable natural laws, that must underlie our experiences, categories, and divisions of the world, some additional brain process must therefore be controlling and binding their function in some way. From our studies of the neurons, we can see that they are the aspects of our experience that are combined in different ways to paint a picture of our world. These are diverse perceptual-motor arcs shaped by the forces of the natural environment to reflect natural laws--like the entire band of the electromagnetic spectrum we always break up into three color bands, or our motor responses fine-tuned to the physics and mechanics of the motion of our limbs. A visual perception always cascades down the visual tract, sound is always made into certain nerve impulses in the inner ear which follow a certain path. Sounds of different pitches affect different hair cells in the inner ear which turn the sound into impulses down different pathways. The creative plastic use of widely distributed brain knowledge requires some factor which can be intimately involved in all these things to bring together the meaning to make the leaps of creativity, unified theorizing, and metaphor or analogy. The phosphor-dot output of a computer screen means nothing if a human brain does not provide the meaning. Meaning is the key-and interestingly meaning controls the terrain of all of our conscious experience, our conscious attention. The problem we must avoid is to posit another "little man" in the brain That oversees and organizes these things-producing an infinite regression from the necessity to have another "little man" perceiving inside his perceptual apparatus etc. There is a unity, but it must be some other new factor we have not yet considered, which has been invisible to our inquiry. The widely separated blips of action

potentials moving as spots down axons to release packets of neurotransmitters is another source of difficulty probably even greater than the fact that widely separated brain area functions give rise to unified perceptions. Neuron function alone cannot possibly give rise to our unified perceptions because of their positioning, functional characteristics, and biological features which distribute the information in time and space and in which information seems only to flow in one direction from sensory to motor, and from one neuron to the next without a retrograde messenger we can see. The retrograde messenger is that factor working back on the synapses or circuits involved in a behavior depending on the outcome of that behavior—the factor that gives rise to the effects of reward and punishment on prior behavior.

The neuron models of the brain have difficulties similar to those problems encountered with artificial intelligence computer models (Searle, 1984) for the idea of conscious experience or the perception of meaning. Information in the brain is thought to be carried by neural action potentials communicating to adjacent neurons much like electrical impulses allow information to travel through a computer. This cannot be the only basis for brain functioning because it would be impossible for us to "see" a unified experience. "Morse code blips" (action potentials) separated in time and space cannot be perceived from within as a whole according to our current theories. Furthermore, we can describe the features and meaning of experience (these "dedicated blips") at various levels of detail, or levels of organization, which are mediated at different areas of the brain. For example, we can zoom in and out visually like a camera-paying exclusive attention to small details, or large panoramic configurations, in our visual field-without even moving our eyes. Look straight ahead and keep your eyes still and you can select out various parts of your visual field, or various parts of the conceptual field, from the particles and molecules of matter to the organization of civilization with our consciousness. Without moving your eyes, to do this zooming or shifting of attention, you are "focusing" on different neural areas within the brain. There must be something unique about the way information exists in brain tissue that is not being considered. There is simply no other way. Let's take a look at how we view brain function.

When you get right down to it, there is no such thing as a locus, or "spot" for any function in the brain. That is a very external and instrument-oriented view. There can be no spot for a particular category, or "reward" for example (see Romer, 1992) even though our instruments seem to show that there is. No neuron detects a feature. The only reason these phenomena have any meaning to our experiments and procedures is that they are embedded in a complex network of events through time that defines them. In other words, is the meaning in these spots? No, it is in the relationships in the brain's perceptualmotor system for which a particular pattern of function arises in a neuron. We trace these events, and then we "see" the meaning of these circuits, with our probes and scientific methods—artificially placing our meaning on them. Our methodology tricks us into believing we see the whole story because we project it onto what we see with our own consciousness while investigating neurons

and their connectivity. Our own consciousness only sees the "now" of those external neurons in other brains in our studies, but from within, everything about consciousness is time and space transcendent. To further illustrate the distributed meaning across neurons; if a single neuron dies, the remaining pattern of surrounding neurons recreates the function of that neuron to a degree. Recovery of function after brain injury may involve a similar process (Romer, 1993) with a loss of details. Each neuron seems to be less important than the overall meaning that it is embedded in. That certainly goes for the whole brain in relation to parts—as we see it from within.

The type of meaning we see that is somehow inherent in neural functioning is the idea of radial categories in linguistic meaning again (Lakoff, 1987 pp 91-114)--which resonates very well with the ideas presented here. A word has meaning only because it is related to many other words, experiences, and concepts. Whether we are talking about language, perception, or behavior, the brain of neurons is a similar meaning machine for our consciousness. Each focus of consciousness is like the center of a sea urchin-with the spines being the static representations of dynamic connections to other concepts, places, times, or things. There is only one problem--external and internal brainlanguage needs an observer to relate contexts and meanings. Our written word needs to be related to past experiences and a large context of knowledge to be meaningful. Each area of the brain is this way too, each isolated part forms a unified meaning and modifies the meaning in every other part-we see this as the unity and meaning of experience. We read these brain states in the context of our prior experiences. As an analogy, "meaning" of a protein molecule (its functional significance) lies in its relationship to the network of protein molecules it exists in which in turn is partially determined by the organization and conformation of its elements. These elements formed within a sun via processes of fusion and fission. Once again we need to see the whole network to get this full meaning. Our science expands our ability to see this larger meaning. The more information that is conceptualized at once, the more meaning there is. Meaning seems to require a certain simultaneity of information availability--a simultaneous information reflection top-down and bottom-up. Memory is, of course, absolutely necessary to meaning. Memory is how the past is brought into the future. Memory is a bringing together of events through time and space—and the basis for the perception of all meaning too. Consciousness is the ultimate in immediate "bringing together" of disparate elements through both time and space—since the apparent operation of neurons happens at discrete spots in time and space called action potentials.

Consciousness is a problem for theories based solely on neurons. Since bits of information travel along paths, and neurons seem to provide widely separated functions that are components of our unified experience, meaning and consciousness would obviously be impossible—even if the location of functions in sets of neurons were closer together, much more interconnected, and not so distributed. Libraries of discrete information do not read themselves no matter how many books or floors exist, or how complex or interrelated the

information is. We need to be able to explain why separate neural "units" are apparently not "hidden" to our consciousness like the functional units in neural network models. This single fact alone explodes the myth of the brain operating like a computer. There must be some overall way that these discrete functions are tied together for meaning, consciousness, imagination, and creativity. Holonomic brain theory (Pribram, 1989) is one way of conceptualizing how the idea of spots in the brain for memories or functions is unlikely. Probably the idea of spots in the brain arose because that is the only way we could conceptualize the data from our methodologies and the fact that we were never equipped in the course of evolution to interpret the functioning of brain material. Our brains are well adapted to reconstructing the world around us, but like quantum physics, there is no reason to believe we have the equipment to implicitly understand the relationships at work, or what we seem to be directly perceiving in looking at brain tissue. Our point of view may be interfering with our understanding-especially because it naturally puts time and space considerations into everything we perceive-and one-way causality. The here-and-now quality of external brain investigations makes them fundamentally flawed as a way of "seeing" how consciousness is built. We would be less likely to see the transcendent factor that creates consciousness. According to this theory, this factor may actually be a basic quality of matter (from its underlying unity) that the brain utilizes. A broken-holographic-like quality giving rise to the logos echo.

Some investigators have proposed theories of consciousness based on holographic interference patterns (Pribram, 1989), 40Hz simultaneous oscillations of discrete brain areas (Crick and Koch, 1990), quantum field effects, dendrodendritic micronetwork effects, and cvtoskeletal networks (Pribram, 1993 Ed.). Currently there is no direct way of conceptualizing the role of these potential solutions. Except for possibly some version of the quantum field effects, they also suffer from the same basic problems as the neural computer models such as the binding problem, meaning, etc. Although a quantum effect such as Einstein's "spooky action at a distance" (Davies, 1988 p.176) or some sort of instantaneous magnetic or subatomic wave interference may be the key (like a snake with its tail in its mouth when combined with certain ideas of seeming "observer effects" from particle physics experiments), we have not yet investigated the biological functioning of all areas of the brain properly. We will find things happening in the brain that do not fit with any salient external model such as the computer. Gene activators that turn on and off protein production, and the organizing principles behind protein configurations may also provide clues and information. We must consider the analogy between DNA, the production of protein upon it, and the basic principles of the universe that produce us for example. There is a real relationship there-a meaningful one. The logos-echo is useful in guiding research. All of these various angles are important pieces of the overall puzzle. For our purposes here we need to recognize which functions model the basic properties and structure of the outside world, and which may correspond to

imagination, creativity, and consciousness. They should be distinctly different. The factor that gives rise to consciousness must transcend time and space somehow. This is the essence of the binding problem, among others--such as the elusive memory engram, or the retrograde messenger in memory models which modifies the Hebbian synaptic circuits. Where should we look first? All of these processes could be solved by some force or effect working backward in time to alter probabilities, or some force interacting without time or space as a constraint. That force may be consciousness, and it has not only organized the train of our thoughts over time, but organized the universe itself from ahead in time to create itself. That seems to be the only explanation that can fill the requirements of the various unexplained phenomena we see in several areas of science—moreover, that is the explanation that falls out from the configuration of the various gaps in our overall knowledge. Consciousness actually seems to be a sort of "gravitation" reaching back in time to gather together information, to alter the probabilities, to produce a unified node of meaning-the relationships of reality. Certainly if we remove our notions of the flow of time, many of these problems would be solved. This interpretation of elements coming together unknown or unseen until they form a relationship we see as a conscious experience is the only way to explain these things. Additionally, there is a lot of work done by researchers about the relationship between brain activity and consciousness which shows that relevant brain activity begins up to a half-second before the relevant conscious experience. Consciousness seems to be the "God" of the brain organizing and pulling into being that which we need to understand, or survive in the world. How could we find this in the brain, this transcendence of time in this organizing force? That may be what brains do above all, but we fail to see this by looking in with our here-and-now methodologies. Paradoxically, you cannot look into your own eye-unless you use a carefully constructed mirror-apparatus built for that purpose. Looking into brains may be a similar paradoxical condition since we do not see that transcendent aspect of the process we are experiencing. I am confident that we will find a way, and this description and elucidation of exactly what we are looking for and what it should look like will allow us to construct the relevant experiments. As a result of these various problems, issues, and evidence, we will need to begin to see that the effects of this previously dark area in our inquiry are enormous-the origin of the universe and natural laws, all the forms of nature, and the goal and purpose of life are explained only by this theory. A theory of developing unity and meaning within the universe. This is truly an exciting time to be alive.

A fairly large area of the biological functioning of brains has been relatively neglected in favor of neuron-computer paradigms and the models constructed using the patterns of neurons in the brain. Once again, as in the "spots" in the brain discussion, and the time-shift discussion above, this is probably because of our strange point of view—nature prepared us for external perceptions only so that we could survive in the world. Looking at the brain is projecting our external world view onto something where it may not fit. Glial

cells fill the psychological-experiential bill of the dynamics and plasticity of our perception and behavior in relation to consciousness. These cells exist in the nervous system in ten times the number of individual neurons. They have widely been thought to be simply the glue or a scaffold that holds neurons in position, or as providing support functions only. This is highly unlikely. Natural selection has made the brain the most complex structure known to man. There is intense selection pressure for more function in available space. It is interesting that our bones make our blood--besides just maintaining the form and shape of our bodies. Perhaps there are some very important and neglected functions performed by this glial "scaffold"--much like the marrow of our bones produces our life blood. The positioning of glial cells is especially important since neurons seem to need some kind of scaffold of meaning or binding to complete the picture of their functioning. Additionally, neurons move along glial cells into position in the brain, and are directed by them into position-the glial cells first form a future "highway" of organization upon which they travel and are organized in order to provide the basis for an emerging conscious entity in a human mind (see later chapters for the "future controlling the present/past" ideas in civilization or the universe and also; Romer, 2001a, 2001c, 2001d).

Before we posit some unknown and unspecific quantum "spooky action at a distance", we need to investigate the role of glial cells to see if they would provide the simultaneous information reflections or instantaneous lateral information flow (apart from the flow of time in neurons) necessary to unify, coordinate, control, bind, and select out our experiences from the parallel information flow in groups of neurons. This "spooky action at a distance" might be more like the consciousness factor of the universe rather than in the brain, or the factor that the brain utilizes via the glial cells-as I outline in another chapter. It is important to point out that moving beyond the constraints of time also entails moving beyond the constraints of space-which may provide the connection between events in consciousness and in the world or universe at large. Like the blind spot in the eye where the optic nerves course into the brain, the glial cells may perform a function that is invisible to our normal space-time perceptual experiences, but without which we might be completely in the dark. We cannot see into our own eye unless we stare into a precision mirror constructed by modern technology, or before that we might only have dimly seen a reflection in water or some such thing. To use an example from cosmology, scientists posit the existence of dark matter (or dark energy) in the interstellar voids to explain the otherwise inexplicable groupings and filament conformations of the galaxies. They have deduced that matter we cannot see exists because of the characteristics of the matter that we can see in the form of stars and galaxies. In the same vein, we must look for some way that the behavior of neurons is grouped, monitored, and triggered without immediate sensory input. Glial cells look surprisingly like that factor. Consciousness cannot fundamentally alter the fundamentals of existence without jeopardizing its own existence-that's why those neural fundamentals are stable—Dictated by the DNA into particular features like visual systems--to a point.

Evolution is all about creating a larger world of truth in order for the organism to be able to overcome obstacles to its survival—we have done an excellent job of speeding that process up with our verbal tools and learning capacity. We create and advance our species by learning everything we can and then creating a greater unity in the world by adding knowledge which gives greater meaning to the world. It is important to fully realize that concepts and paradigms are tools. As discussed in chapter 2, we need to know how our psychology, evolutionary backgrounds, social dynamics, and paradigms interact with what we are seeing in order to know the truth. Even our personalities themselves are tools developed in our social milieu that can obstruct our viewpoints because they are only one subset of all available brain personalities, or strategies for survival in our life milieus. In the case of mind-brain investigations, we might need many, if not all, of these tools at once because the brain is the organ of all of these things. The brain reflects the underlying properties of all these external things and consciousness is all about wholes.

Any brain theory must be able to explain how we can describe an experience at all levels of analysis and also manufacture new experiences using different elements from various levels of analysis in imagination, thought, or dreams. Consciousness gives us access to all of these elements and processes going on in the brain simultaneously. We see the future possibilities in thought and behavior immanent in them and can choose with consciousness from among them. This is meaning too-not just the fitting of current experience into the accumulated past knowledge. It seems reasonable at this point to theorize that glial cells operate beyond the normally flowing time and space universe of our perceptions—beyond the content, making this content meaningful. It is logical to assume these content things are the province of neurons based on the evidence we have. The "world" we see is maintained and operated by the neurons. This world is the visual and sensory "playing out in our brains" of a living theory of the operation of our universe so that we might be able to continue to exist in it. We need to solidify what does not change in order to build upon this for our future purposes and flexibility. Our ideas of meaning and what is important are also shaped by our cultural and verbal milieu, in combination with our inherited intellectual abilities.

Synapses are highly interesting for this theory. They are there for a reason—in fact they may be there for many reasons at once, beyond our ordinary view of them. As an example, they may allow the flow of information and titration of potentials in the synapse, and also allow the glial cells to "wiretap" into the information flow from beyond the space-time being emulated and constructed by the living equations and theory of the neurons. Accordingly, synapses may exist for a number of different reasons:

1) to allow plasticity controlled by glial cell "invisible" information reflections, since consciousness facilitates learning of meaning (meaning is the patterns sharing their nature)

2) to allow levels of analysis to contribute to overall experience and learning—the glial cells can interact all along the pathways of neurons,

3) to allow groupings of function or perception via glial cell action,

4) to allow wide areas of neurons to be monitored and modulated via glial cell communication network "mirrors" at every level of information flow—based on any one area of function (sounds very holographic here), and of course

5) to allow the manipulation of probabilities of perception of certain things to flow back in time—also producing the meaningful patterns and invisible coordination of events and patterns in our civilizations beyond our everyday tasks.

Glial cell "mirrors" could just reflect the function of neurons to every other neuron by connecting them through time into a point—creating meaning from the same unity from which the universe itself sprang, and that is still threaded through everything including our brain matter. This would also explain the holographic-like qualities of brains. Beyond time and space is ultimate unity-which contained the speck out of infinite possibility that became our universewhich I discuss in greater detail in other chapters. Evolution operates by selecting out of possibility that which makes our existence here and now possible-just like all those amazing coincidental numbers, events, etc. in anthropic cosmology theories. DNA would form a complete thread of an umbilicus back to our original ancestors, and forward to omniscience and godhood (the real "Ubermensch" intimated by Nietzsche (Nietzsche, 1969), or Tielhard de Chardin's Omega Point (De Chardin, 1959)). The pervasiveness of causality and time is actually an illusion of the time-constriction point of consciousness inside the mirrored bubble of space-time we swim around in from this view.

Repeating themes exist in various things at different levels that humans pay attention to easily. Like repeating fractal forms, this is what we see in the organization of matter at all levels. For example, time and shapes exist in all our perceptions, and therefore is probably built into the temporal characteristics and functioning of neurons. Also, inertia exists at all levels of matter and must somehow be related to the functioning of all relevant neurons—we know that a massive object will continue moving through obstacles. Matter is organized at all levels. Groups of people act like a larger brain in their organized functioning. By looking at these things in our world, we can learn about our brains. Many other more subtle similarities exist in the functioning of various

things, categories, and people in the world—like the ant analogy, or the tree of life or knowledge. It is useful to think of these organizing principles as the "genetic code of the universe" out of which everything is built—part of the "points" binding everything together. Perhaps our genes are the repository of the constrictions in infinite possibility (Which our particular universe seems to be—see Linde, 1994 for some theoretical roots to this idea) inherent in absolute unity beyond time and space. The implications of consciousness research must not be underestimated.

To repeat, these types of repeating organizing principles enable analogy and metaphor, and even our spoken language and symbols. Language is possible because it is constructed using the same neural equipment with which we construct the natural world-a natural world which has naturally symbolic properties because of how it is constructed with this unity reflected everywhere and threaded through everything. Ultimate meaning exists in the future working backward and organizes all things. The brain is a meaning machine. Meaning drives evolution-which is speeded up by our learning ability. Biological drives may have given the seeds for one aspect of this theory--biological drives underlying our behaviors may provide the "base metaphors" upon which language, behaviors, and perception get their original organization and meaning which we build on and can learn to control or to transcend by finding a larger unity or meaning behind them. A review of the literature supporting these assertions is beyond the scope of this paper (see my other three 2001 papers), but these concepts illustrate types of organizing principles for behavior and brain theory. How are the speech areas of the brain connected to our hands or mouths when we write or speak? Why do we have trouble sometimes finding words for what we clearly see? Glial cells may hold the answer.

Recent evidence has shown glial cells to be able to control the information functioning of hippocampal CA1 layer neurons (Keyser and Pellmar, 1994), to promote recovery of learned behavior after brain injury (Kesslak, Nieto-Sampedro, Globus, and Cotman, 1990), and to respond to the release of neurotransmitters in various ways (Kim, Rioult, and Cornell-Bell, 1994; Chiu and Kriegler, 1994). Norepinephrine beta receptors have been linked primarily to glial cells rather than neurons in the brain (Shao and Sutin, 1992). Manipulations of these receptors have definite psychological effects. Chemicals that interact with glial cells, such as norepinephrine, have been shown to effect plasticity in brain tissue (Bear and singer, 1986). These chemicals may have their effects through glial cells (Romer, 1993; Shao and Mcarthy, 1994). Astrocytes (a type of glial cell) are extremely plastic and can divide, migrate to new areas, and grow. Since response plasticity and perceptual plasticity are linked to consciousness, this is also general evidence that astrocytes may provide a powerful organizing force in the brain if not a large part of the "ghost in the machine" since there is evidence that they can control the activity of, and growth and development of, neurons in the brain.

Consciousness is the force of evolution towards transcendent unity looking for information to build and advance itself. Glial cells may have assumed this

role in brains, where this process is greatly accelerated and finds its eventual culmination. The factors coming together and organizing in our civilizations point to this culmination happening now-with the growth of connectivity, knowledge, and our very recent consciousness studies over the last few hundred years. This idea of consciousness being an evolutionary and creative force is hard to imagine if you do not accept that the causal flow of time is an illusion (see 2 of my other papers for direct evidence of this). Why haven't any species developed some extreme defense, toxin, or weapon that wipes out all life except for itself? Why aren't there super-poisonous, fast, birds for example? Why did the dinosaurs die? If we use our imaginations, we will see that nature is not a big war zone, but that various creatures need to be eliminated or strengthened at various times by death. All of it can be explained by some state of mankind necessary to the creation of life itself on earth reaching back and selecting out it's own developmental path--from anthropic cosmology (see Gribbin and Rees, 1989), all the way through to the present day. Various religious-oriented ideas, such as a future "heaven on earth", nirvana, or the "Omega Point" (De Chardin, 1959) may simply consist in the collective realization of this force and purpose of life toward greater meaning or unity-not some artificial, overarching, future social or political scheme using force to make us all act according to a plan-as in communism. We already are doing that. We must not let our vaunted symbols and their practical applications usurp the much greater actual reality behind them. Past civilizations, geniuses, religious figures, and cultures may be an echo of the future-echoed through and back in time otherwise we would not exist—like ripples in a pond from a mass dropped in the center. The instructions handed down through time by "God" sitting at the end of time, or at least the end of the past ages and their ways. This would explain a lot-danger of sins (non-transcendence), religions, all of it. This would tie completely together a lot of religions and their concepts-or the fact that we have religion at all. You are probably asking yourself at this point; "all this from the study of glial cells and consciousness?". Of course. Then science and religion would be clearly two sides of the same thing-two directions of looking at the same thing.

Evidence has also been gathered that glial cells can participate in the information transfer in neurons by increasing or decreasing sensitivity to excitatory or inhibitory inputs from other neurons by a release of calcium ions that move through the glial tissue in a radial wave from a center (Newman and Zahs, 1998). Most recently for this theory is evidence from Ben Barres lab at Stanford (Ullian E.M., et al. 2001) They found that astrocytes exert a powerful influence on communication between neurons by regulating both the efficacy of synaptic transmission, and even the numbers of synapses themselves. Also, as an anecdotal aside, studies of Einstein's brain have shown that he had about 10 times as many glial cells in his parietal lobes as many other normal brains. That fits well with the theories here too because more glial cells should follow from more attention or consciousness. The parietal lobes are highly involved in higher functions such as reading comprehension and spatial imagination. They

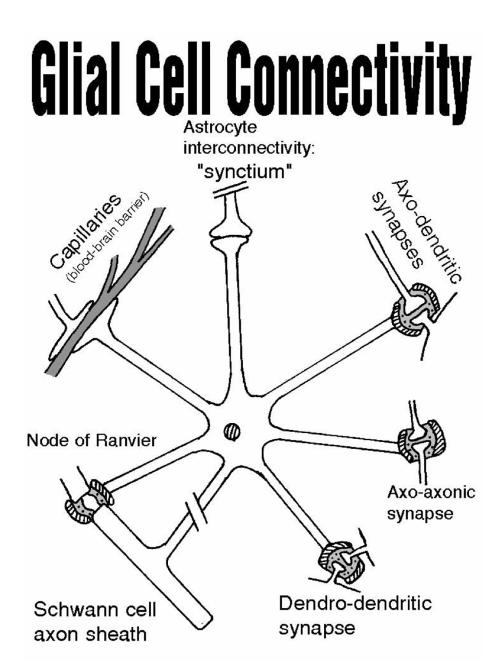
have also been interestingly linked experimentally to lucid dreaming (Holtzinger, 2000).

It is possible that glial cells are the substance threaded through everything that seems so hauntingly familiar in the universe because our brain IS the universe we know. Glial cells in the parietal lobes may serve the functions and attentions which we link only to our sense of personal consciousness and meaning distilled out of these patterns. That may be why we see so much similarity in our consciousness and the unity of the world-we built our own consciousness out of the unity of the universe we portray in our brains-we constructed a universe within a universe this way. Beyond the great potential for understanding ourselves, investigations into the functioning of glial cells may lead to cures for diseases such as Alzheimer's or schizophrenia (Romer, 1993; Hertz, 1992). Glial cells definitely may be the key here to really understanding these things. If not the glial cells working beyond the time and space of the brain, then there must be something else beyond time and space at work. There is no other way to explain the binding problem, and meaning in combination with the evidence we have from our modern sciences. Beyond time, via the DNA from a single ancestor, all life is one big organism-each species is a limb on the same body-if you ignore death and focus on the unbroken line of DNA. Any species, or set of species, may be changed or controlled or as one through time this way-based on consciousness, which is the striving toward real unity of life. Glial cells may be the source of consciousness in brains interacting across time-the missing dark matter of minds.

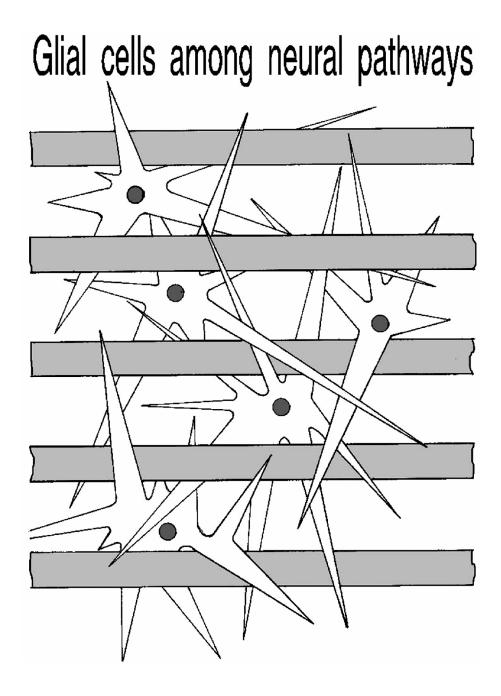


CHAPTER ILLUSTRATIONS:

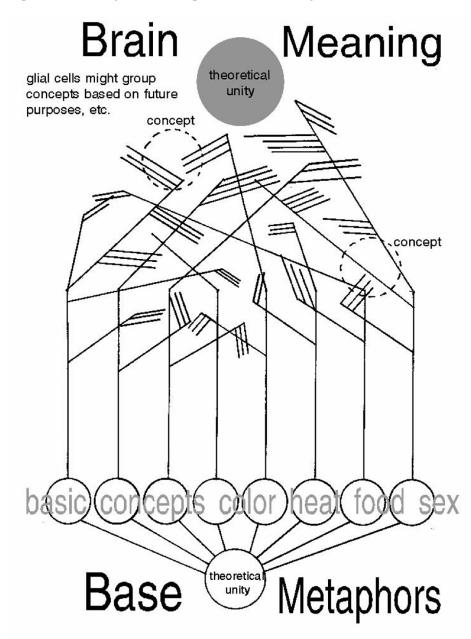
GLIAL CELLS interface with the processes of the brain on many different levels—including at the synapses.



In this stylized picture, We can see the linear flow of information in neurons as segments of a huge unitary spiral. The glial cells are depicted as a source of lateral information flow behind these and between them interacting with them.



Here we see a diagram representing the whole brain metaphorically. Evolution of the brain across the span of life on Earth, or the psychological evolution within a single lifetime recapitulating this, is analogous to the development of the universe itself across the span of the existence of all time. The meaning of the universe and the internal meaning aspirations of the brain are the same. They are a unified feature of both—connecting them across time and space and driving their development and unfolding.





And never for each other shall we feel, till we have sympathy with nature in her forms inanimate, with objects such as have no power to hold articulate language. In all forms of things there is a mind.

--Wordsworth

Even so large as the universe outside is the universe within the lotus of the heart. Within it are heaven and earth, the sun and the moon, the lightning and all the stars. Whatever is in the macrocosm is in the microcosm also.

--Chandogya Upanishad



CHAPTER 4

Introspective Investigations of the Complex And Rare Events of Consciousness

Life has sought to understand the world of experience since the smallest organism began to interact with its environment. Even the smallest interactions possible in single-celled organisms are a form of elemental "knowledge" of the environment. Knowledge IS interaction with the environment-either intellectually or physically. Life was "chosen" out of all the matter of the universe to begin to model and reflect the principles at work in the universe. Knowledge began to organize matter and become a part of it. Life began to unify and take on the meaning of things in the universe in order that it would continue to exist. The purpose of the organism is contained in the detection of some quality of the environment in relation to the response it gives-this constitutes its knowledge. Knowledge is the environment shaping the organism. Knowledge is initially shaped and refined in biology by mutations and deathnature experimenting and building itself. Death has been simply part of the creative process. If you take knowledge as the real goal of evolution, which makes much more logical sense than simply focusing on conflicts and survival of the fittest aspects of this, man is at the apex. There is an advancement/nonrandom quality built into supposedly random evolution. Mankind is the most refined and qualitatively different organism existing at the top of the knowledge "food chain" in this search for truth. Life is knowledge. Ultimate knowledge gives ultimate adaptive flexibility to organisms. Higher truth is the destination and goal of life. By moving quickly towards this goal of knowledge with our large flexible brains, we overtake all other species and avoid the pitfalls and ecological niches that narrow the repertoires of lower forms of life. Animals get stuck along the way by having a stronger propensity to stay in a niche that works for them now. Having a great way of getting food now can divert and kill later-dependency on narrow aspects of the environment means narrowing adaptive flexibility for future scenarios and

contingencies that might require flexibility to overcome. We learn this lesson by watching the trials and tribulations of nature-for example watching an ant walk unaware into the sand funnel of an ant-lion. The confusion caused by camouflage and mimicry in nature means death. All of nature is a test of knowledge and awareness. By looking at nature we can see a lesson in microcosm of what we must do-written across the species and across time. We can perfect our knowledge and recapitulate the past trials of life by watching nature and learning about nature. We can learn from our own history in the same way—we learn the pitfalls of our own nature. Looking far into the future, and learning by the past history of the universe, life, and everything else, is human knowledge. All knowledge seeks to transcend time and space in the accumulation of knowledge. Consciousness brings our knowledge to bear to understand something new or to be creative to solve problems. Consciousness is the result of the transcendence of time and space. That is why we notice meaning in consciousness. Consciousness is the spirit of knowledge accumulation come to life and being active and mobile to assure our existence. It is the essence of the life force which drove evolution.

Our unique mind allows us to speed up the process of evolution toward this end of unity and transcendence, and today we are exploding into knowledge not dreamed of even 100 years ago--an extremely short time for such a radical change in our relationship to the environment. We have reached a sort of creative critical mass. Even though our bodies are stuck in the evolutionary past to sustain us, our brains have distilled and discovered some great ideal of evolution in the distillation and refinement of knowledge in life. We are rocketing toward this goal of perfect knowledge. This is the 64,000 dollar question of life since the beginning that we are answering now. Whatever the prize may actually be (we have some idea, some foreshadowing, in religious ideas), we are inheriting it from the universe at this time. There has never been a moment in history like this. Epistemology, psychology, anthropology, chemistry, biology, physics, etc. are really the study of the apparatus and records of our search for truth-intimate studies of ourselves. These are the methodologies we have used. These are how we built the modern worldview expanded our consciousness into the invisible abstract and physical world around us and within us. All of these different areas of knowledge are tied together by some future ultimate unification of knowledge we seem to be moving toward, if you take this process to its logical conclusion. All of the universe and nature, in its forms and functions, points toward this unity coming now. Our consciousness is already a unity-the only unity currently binding these things together, as it binds all things in our experience together. We make good judgments in our minds with more complete information. Our consciousness can use impulses we might otherwise blindly follow as information to make much better overall decisions. Consciousness studies is the outward reflection of an ideal mind-distilling all knowledge to find the most fundamental truth. Looking at this unity, we can ask whether there are important phenomena available to our consciousness that are not available to

♦ *The Textbook of the Universe* ♦

methodologies such as science or logic? This question is extremely important because consciousness seems to be the prototypical unity that the building of knowledge has been moving toward—some ultimate ideal of meaning (unity and meaning really being the same thing). Meaning is a unity of potential possibility and relationships from past knowledge woven into complex relationships seen at once in the minds eye. All the consciousness we have now could simply be the experiential foreshadowing of the coming of the creator from beyond time and space.

If you accept that all life seeks the unity of meaning as its goal, you can see that the history of science, and logical description in general, is marked by a set of repeating flaws. From the idea of Phlogiston in objects (a substance thought responsible for their combustive properties) to Godel's incompleteness theorem in mathematics, these flaws are intrinsic to the process of building knowledge, or descriptions of the world, via scientific methodology and verbal logic just like physical evolution built our brains. The easiest way to conceptualize this problem is that science and logic are subsets of the higher unity of realitysubsets of the reality we perceive in our brain, which is itself a subset of the reality we surmise is "out there". These subset-of-reality-describing-reality problems are analogous to the problems and functions of language as an information-encapsulation of reality. As a metaphorical or representative "echo" of actual reality, language is an elaborator-teacher, bookmark, and trigger of the relationships we have in our brains from the billions of years of evolution in this universe. Language came into existence because of the unity taking shape in us-a unity of knowledge of the universe. In this view, language is a subset of a subset of reality (made possible by the "logos echo" principle of "reality" formation--see my "logos echo of unity" chapter). We ratchet ourselves up on the steps of these subsets to higher knowledge, higher unity. Just as in nature we can see in microcosm some of the patterns within our own society—either in ants or in the politics of chimpanzees. Each form of life is really a step in this pyramid. Our brains are a moving, colored, 3 dimensional language describing reality. Our brains are an "echo" of reality nested within reality-a theory of reality we hone and modify with consciousness and collecting more information. We can see this because we have an introspective consciousness. We bind together our experiences and detect meanings or unities running through them. Even in the grand scheme of things, the universe could not have arisen in the form it takes without some great introspective consciousness-like entity that ours reflects-that "breathes fire into the equations", as Stephen Hawking so famously said. This is apparent from the nature and unity of consciousness as the interpreter of languages, and also as the interpreter of the very nature of languages themselves--which are woven into the fabric of reality itself. The universe, and the life within it, is a language describing us which we have been trying to understand since the beginning. Since no language has meaning without a reader who gives it life, our consciousness is the same type of thing as is necessary for existence to be

constructed, and later as a necessary component of all descriptions of reality that are constructed in order for them to have meaning again.

Words are dead patterns without the unity of meaning. Our consciousness has been building to be the interpreter of the languages of reality for billions of years, really-not just figuratively. It seems to be the purpose of creation itself-this meaning, or ultimate unity. Religions have been our theories of the "phlogiston" responsible for the fires in our equations-an alchemy of the chemistry of this unity and the meaning of things. Introspection is the only way, a sort of "Rosetta Stone" for the hieroglyphs of truth echoing through existence. that we can see the meaning of this higher language. These hieroglyphic echoes exist everywhere at all levels of our perceived reality like a hall of mirrors, or a set of nested forms echoing small to large like the repeating patterns of the Mandelbrot set as you zoom in and out of the picture, or the repeating patterns of cragginess of fractal coastlines on large and small scales. This is described as a new natural law of the universe, which is only apprehensible through introspection. (Explained in the chapter; "Logos Echo of unity in the universe"). This principle is behind all analogy, metaphor, and allegory in all language, and is simply symbolized by the spiral—life moves along the lines in space-time. These linguistic-poetic devices of language that allow it to symbolize are actually very basic natural laws of organization for language, brains, AND the universe itself. Language exists naturally in the universe. This basic pattern of reality is supported by evidence available only through introspection of the meaning contained in the unity of consciousness.

Towards the end of this path, there is great danger. This is because a little knowledge most certainly IS a dangerous thing! That is why now we must move quickly. All things happen for a reason on the grand scale across spacetime. Since it is all about introspectively interpreting language, this is intelligible. Meaning is reflected in the universe by unity-symbolized by gravity, suns, etc—stages on the path. Ultimate meaning is the real mass that was like a weight dropped in the center of reality. The great weight warping space-time, so that everything moved toward it, always was ultimate meaning, or what people like to call "God". Echoes emanated out from this center like the "echoing" rings of waves from a stone dropped in a still pond. Of course, lots of people participated in this movement towards ultimate meaning and unity at one time or another, selected by the forces of the universe, and we called them "gods" or "divine" (the Egyptian Pharoahs, Viracocha from South American Indians, the emperors of China, Ghengis Kahn, Christ, etc.). Processes at work all through this were partially apprehended and also called "gods" because their distilled pattern was a unity (a personality) running through nature—such as the dance of creation and destruction of Shiva in Hindu mythology, or the god of the harvest, wind, thunder, etc.

According to this theory, religions are ultimately based on the teleology of the invisible "sun" of God through time. In the past, there have been books written about Northern European sun myths as the origin of ALL religions (Titcomb, 1999; Morris, 1899). Ancient religious temples and structures like

Stonehenge and Macchu Picchu are perfectly aligned to important points in the movement of the sun through the seasons. A very direct example can be found in the sun up high (ahead) with many hands coming down over the people (into the past) symbol of Egyptian hieroglyphics during the reign of the pharaoh Akhenaton. In the book Son of the Sun (Devi, 1981), "Savitri Devi" (her mystical Indian name) says this about Akhenaton's artists artworks of him:

In practically every one of them the lofty symbol of the Religion of the Disk-the Sun with downward rays ending in handsradiates over the scene depicted, so as to recall the presence of the One invisible reality in the very midst of it, and to emphasize the beauty, the seriousness, nay, the sacredness of all manifestations of life when experienced as they should be, in earnestness and in innocence, and considered with their proper meaning. Whether they stand together in adoration before his altar, or lie in each others arms, the Sun embraces the young king and queen in His fiery emanation; His rays are upon them, holding the symbol ankh—life—to their lips. For life is a prayer. One who puts all his being in what he feels or does—as he who "lived in truth" surely did—already grasps, through the joyful awareness of his body to beautiful, deep sensations, a supersensuous, all-pervading secret order, source of beauty, which he may not be in a position to define, but which gives its meaning to the play of the nerves. And he is able above all to acquire, through the glorious exaltation of his senses in love, a positive, though inexpressible knowledge of the eternal rhythm of Lifeto touch the core of reality.

The great unity of the future demands certain things of the past—building civilizations, etc.—to build the knowledge and consciousness fast enough to avoid destruction, etc. by partial truths—such as atomic weapons, fanatical religions in conflict, and cultural and genetic differences or intrigues. Religions capture parts of these larger patterns to things. The Bahaii faith's founder Baha' u' llah said "the source of all learning is the knowledge of God". What religions are saying, in essence, is that we really have to love unity to get past all the pitfalls and fears—which are the fist of the devil, or destruction. Turning away from building towards truth means falling from grace as "the people chosen" to meet God in ultimate unity. That seems like religious terminology, but the survival and progress of life actually depends on this process as a natural law of life in this universe. The most basic law. Whole knowledge forms a symmetrical and sure unity. In Hermann Weyl's (1952) book on symmetry of forms in nature, he cites Goethe (from "Faust") about how he banishes Mephistopheles, the devil, by using a highly symmetrical pentagram:

"Space itself has the full symmetry corresponding to the group of all automorphisms, of all similarities. (as the spiral illustrates) The symmetry of any figure in space is described by a subgroup of that group. Take for instance the pentagram by which Dr. Faust banned Mephistopheles the devil."

External reality outside our brains may seem unapproachable as an idea until we see the clues within our experience, and across our history, as to what the nature of the reality beyond our brains is like. All of these clues are knitted together by the unity of our consciousness. Once you knit them together, and weave all the strings into place, a picture forms on the tapestry like an M.C. Escher painting, a Bach fugue, or a programmer's nested loops. All religion has been the attempt of the processes and unity of higher (more unified, meaningful, and true) consciousness in the future to express itself in the flawed, nested, languages of brains and speech. Religion is an apprehension of the meaning given to the process of cosmic and biological evolution by the teleological goal of consciousness. This is something very real here and now that animates and binds the universe together-ultimately the source of all meaning. This meaning becomes clear only when we realize that the character of consciousness is time-transcending in every aspect. It is not just the oneness or unity behind things in our minds, but also the oneness behind all thingsfrom the absolute, unexpressed unity of the big bang expanded into our universe, to the creative unity of the consciousness once again in the future, and being born in us (really both beyond time) that all evolution moves toward.

From the birth of the natural laws in the universe (sort of a computer hardware right after the big bang-based on unity, but without it's own independent meaning), to our consciousness today, there has been an evolution of another sort going on parallel to all of this-of consciousness in us. Anthropic cosmology (specific, fine-tuned, laws and constants of nature that must exist or we would not be here to consider this) is the same impetus as that which drove biological evolution and its astronomically unlikely sets of beneficial mutations selected out of the field of all possible mutations. Consciousness is like the future reaching into the past through our minds, but it is really something beyond both time and space in its effects—it helps to think of it as in the future where it comes together. I'm not simply being poetic by saying this, but rather it is literally the case. You cannot ignore the evidence. Perhaps this fact of nature on the larger scale is the reason behind the fervor of those who want to literally interpret scriptures, etc.-you DO need to take the language seriously, and literally, but you need to be reading the larger, more whole, book of life written across the entire universe-not just our written language which symbolizes and points to this actuality and contains all the imperfect perceptions and more immediate purposes of people. All subsets like this are tools, and dangerous to the future if we do not realize that all work is done from within-a work that needs to continue to progress toward wholeness in order to continue to exist. Consciousness, at first glance, is most obviously

unified—NOT separated by either time or space (time and space being the same thing really).

Our world and our lives are a microcosm echo of eternity. Memory is the past being used to construct the future (from the future), and consciousness seems to be our will-which is our future echoing down through the past, written in the processes and trajectories of the past. The processes in the world we see are the past, while building the future. When we see an object in the world out there like we normally do, we can move to it via space-time by walking, riding a bike, driving, etc. Take some object across a room. We can walk over and touch it. We already knew of it in consciousness via light reflected into our eyes, then later we are actually in contact with it. The consciousness we used in the example of moving toward something we see by walking, etc. worked MUCH faster-at the speed of the "light" that entered our eyes. What this really means is that the contents of consciousness travel at the speed of light everywhere we look, while our "logical" bodies are required to "hoof it" at painfully slow speeds-to state things colloquially. We move across rooms toward meaningful things. Consciousness binds these things across space at light speed. We can see the past with telescopes looking out into space, like the memory of the universe, because on these scales it takes a lot of time for light to travel. The stepwise-meaning and forms example of the "logos echo" allows you to make the leap introspectively to the true meaning behind all the light traveling and time stuff. For our bodies, light is something so fast we can never go that speed. For the ultimate unity of the universe to exist, it travels instantaneously anywhere in the universe at once, while light is agonizingly slow by comparison-like walking compared to our light vision. Analogy-apprehensible only by consciousness, and existing only via consciousness, is the key to ultimate knowledge of even the unseen beyond the universe by following the path of analogy logically to its conclusion in ultimate unity. We can peer equally into the meaning of things now formed over billions of years. We can use the telescope of science and all knowledge to peer also into our future. Line up the lenses of the logos-echo, grind the mirror/polish the mirror of reality within using knowledge, and you will see eternity reflected everywhere and your own part in it. Consciousness alone-with its faculty of abstract thought-can bind together the evidence we see in our telescopes and know how the universe was formed and how the processes within it work. It can do this instantly—even with evidence existing over billions of years. This is the ultimate time and space traveler-beyond even the speed of light in our vision. What I am trying to do with all these examples tying cosmic considerations and consciousness together, is to show that the main feature of consciousness, and the key to understanding both the universe and consciousness is this extremely salient unity and its character within our own subjective consciousness.

First person accounts of experience, and introspection, are obviously the most powerful tools for the investigation of consciousness at this point in our science because our theories of how the brain works to give rise to

♦ Steven E. Romer ♦

consciousness are scattered and incomplete, and our current theories of how the outside world works are also logically incomplete as a consequence. Like the logical (Zeno) Greek paradox of moving half way to something before you can get there, then moving half of that, etc.-the problem is that all descriptors have an intrinsic flaw. They are always only partial descriptions like some theoretical Rube Goldberg machine. These machines are problematic because they leave out the creator-the unity behind the machines. The machines can work without knowing the creator, but to ultimately understand you must be like the creator. The machine-like descriptions leave out the consciousness that brought it all together—the unity that guides and tweaks these relationships. This is the will, the creative force of an intellect filled with the power of knowledge, which is subjectively experienced as consciousness. The unity of the universe is the same as that in our consciousness. The logos echo, and the symmetry of natural law and forms, are two large external signposts to this unity which is also reflected in our brains. Consciousness does not exist in our heads only. All of our knowledge and theories, and the construction of our brains, reflects aspects of reality. Space-time must be a trick of smoke and mirrors-a wilderness of the unity of consciousness. Reality is always incomplete without unity, and its echoed expression from within that unity as consciousness. God, or what we non-technically describe as God, is actually 'hiding' in us and behind the universe-thus the conception of "gods" and "God" in history.

Certainly the one driving force behind evolution-in this view the most important-is not selection--that's the down side of the process for many species. The evolution of the universe, of life, civilization, or a man within a life recapitulating this process of creation, all of these are driven by one thing: CONSCIOUSNESS. This is the beyond space-time unifying force that pulls us forward--like gravity pulls matter into concentrations, planets, suns, black holes, quasars, etc. Consciousness has a gravity that pulls it into higher concentrations by its own creative force-by will. Will is the gravity of consciousness—the reactor of life. The unity of the existence at the big bang is right here with us now all around like the very air we breathe. It informs the shapes of matter, and provides our consciousness with the basic foundation of intelligibility of it all like a vocabulary and grammar. The universe is like a mechanical drawing representing a living consciousness. An echoed coherence indicating a center that I call the logos-echo (see previous chapter). Obviously, this idea of future consciousness explains a lot about the struggles of mankind, civilizations, religions, science, etc. All has really been a holy quest-one of those incredible journeys of the soul on a grand scale to meet its maker. Every symbol, all meaning, derives from this gravity of unity. The imperfections inherent in realities including space-time, or any language attempting to represent perfection, are a quality of their existing in separation itself. If we fear oblivion in our lives, it is because we do not love perfection, we do not love something higher than ourselves—a greater truth or unity. Love of something greater (beyond selfish desires born of fear and weakness) is the essence of classical heroism—loving something greater than yourself to the point that your

will becomes the will of that greater truth and unity existing beyond and across time. Your life can become so aligned and subservient to this greater will, this greater pattern, that your actions become the hand of God, effectively. This echoes many religious writings. This is the object and task of Western information society—now expanding to be world information society. All life takes part in this at some level. Fear in life is only a part of the building process and apparatus.

To directly speak about one of the most relevant religions in all this, to give a real-world example of how this theory transcends and supercedes the patterns of all world religions, lets reference Christianity here. A Christianity that idolizes the death and sacrifice of our best-in martyrdom-catches part of the truth of things well, but it is time now to accept that we are worthy of God's grace in all this, and to enshrine and idolize staying alive for God's will. We cannot afford the death of our best any more-those with vision who clash with the more Earthly powers. We cannot do the dance of creation if we do not allow our best and deepest minds to live fully. God (as shown here in this book) has spent a lot of time and energy pulling these minds and spirits from nonexistence. To not nurture their numbers is to go against this pattern and destroy. To kill them is to become the hand of destruction itself. There is nothing more metaphysically evil, more deeply evil, than to banish necessary truth from the world. That is suicide of the life-force. It is maladaptive on the grandest scale possible-we define "mental illness" selfishly as maladaptive behavior for an individual. Sometimes maladaptive behaviors in an individual are quite adaptive for the pattern of life overall. Heroism and martyrdom are enshrined in our hearts precisely because this is true-these things motivate us and strengthen our resolve because they are so starkly terrible and show us our own failings in not protecting and following the best we produce. They show that we can be put in danger of annihilation despite the overwhelming sense of love from the patterns of the creator. We need to be able to see these people now in order to make no mistakes, in order to not fall prey to deceptions and shortsightedness. The loops of cycling information made by our salient conscious perceptions--and then sent out into the world as organizing influences--must not fall prey to destructive patterns which have been wrongly and insidiously associated with our highest patterns-especially the idea of a savior! These are subconscious icebergs which will sink the ship of civilizations. We need the force of coherent light, the laser vision of higher knowledge from the universe to blast these away forever, not just a thousand years, and to enter the kingdom of heaven (to use religious terminology again). To fall into destructive patterns is to create self-fulfilling prophecies of destruction for creative minds seeking truth and gaining power in the process! We need purity of truths and purity of influences for these people-which is another reason why they need to be protected and increased: to create such an environment. Partial truth can stop us on the path to God-leaving us open to manipulation by half-truths, the tool of destruction. WHOLE truth utterly destroys all the diverting patterns baited with glimmering fool's gold. That is exactly how we got here via evolution-with

the armor of the whole truth of the creator. We are truly chosen people in this. I hope my gift to humanity--with all their now obsolete and incomplete religions-is finally life and wholeness. No earthly power, or power of the damning stagnation of approximations of truth held past their usefulness, can touch the soul of a whole. This is what Christian alchemy calls "the armor of God". Lesser manipulations and deceptions all become transparent in this higher knowledge when pulled together in our modern information societies sciences and from our many religions-even from the obsolete "religions" of animals all through nature. We have analyzed and taken what is good about animal patterns and we have also jettisoned the dark and wicked. We need to do this with all our own religions now too. That is the key to the future. Destruction lies in the false destination of incomplete truth. We were meant to transcend that-as all life has done since the beginning. Each individual must align their minds with the lines of force in the universe of truth, not the lines of political or financial force. These other forces are important, but only when they serve truth. The founders of this country were men of vision, heroism, and truth who sacrificed for the future. Freedom is only important for these higher purposes to be able to live and grow without opposition from the majority which is more prone to fear and manipulation. Far from removing kings from power as a goal, freedom ensures the reign of true kings in the heroism of the life-force in our people. Freedom and democracy is worthless-especially with the rise of the modern media and its influences-if we do not realize it's true purpose in limiting the power of destructive forces and protecting, increasing, and empowering those who follow truth. Eugenics, as reflected in the entire panorama of life on Earth, is an inseparable part of this. We must protect our future. Our best motivated minds are the house of truth, justice, and the creator. There is a single objective basis for morality in this. Truth is not relative. Only deceptions have relative amounts of truth-alchemy was greater truth, which served a purpose in leading us to chemistry and it's powerful periodic table. We must understand that all knowledge systems are good or bad based on how we look at them. If we learn and move on to greater truth, they are good. If we fall at their feet and lose sight of greater things, they are bad. If we do not have the genetics to move on, if we cannot fully see the greater things, we automatically do evil—like the bear attacking the park ranger while mistakenly thinking it is doing "good" according to its narrow world view. We need to mine the gold from every religion and move from darkness to a totally new future. Christianity and every other world religion is here made obsolete, although still mightily necessary as part of our path and the wonders of it. It truly is a new age in the known universe that is now dawning. The sun now rises forever, and shines forever-as the heliocentrists, knew in their hearts partly as a result of transcending the mythologies of earlier peoples who thought the sun only came traveling across the sky and shining in their world periodically during the days. Our telescopes tell us it always was shining during our entire lives on Earth and beyond. I think lapsing into the jargon of religion is an excellent way to show how deep motivations, spirituality, and science are all the same thing. The exact

same thing that has been happening with all life becoming conscious in human society.

You cannot talk about reality, and especially not consciousness, without referring to the unseen-the abstract, or the holy even. The acquisition of knowledge IS holy. All conceptualizations of anything fall short without including the dynamics of consciousness in the picture-including the process of evolution—both the evolution of the universe and the evolution of life. Evolution is seen here as the struggle of imperfection to reach perfectionsymbolized by the Christmas tree with it's star on top, and all the ornaments who "strayed" in order to provide noble markers and language, or support for further growth of the ultimate unity of consciousness. They are the true sacrificial animals. Truly, all things have the element of the one consciousness in them-they are only incomplete, or flawed, when viewed separately. Just like we know language taken out of context is almost the same as lying in some cases. This flawed view is a natural consequence of science without consciousness, because consciousness is an inextricable part of nature and the most important impetus and element of nature. Three characteristics of consciousness especially point up this incompleteness:

- Things have meaning to us, and this meaning selects the terrain of our consciousness. We are most aware and most conscious of meaningful things. Meaning can be conceptualized as the instantaneous nexus, without regard to both time and space, of unimaginable amounts of data.
- 2) Consciousness is unified, whereas brain functions, and the morse-codelike action potentials correlated with the experience of consciousness are distributed (the binding problem).
- 3) While statistically rare events, or complex combinations of events, have great meaning, and control over consciousness, and gave rise to consciousness, science focuses all its attention on the repeatable. Such rare events are important for understanding the role of consciousness.

Experience tells us that certain patterns are repeated and echo throughout our world and languages (see the "logos echo" of unity chapter), and we even construct our own patterns in language that echo the world of our experience. We use analogy, metaphor, and the ability of our brains to see one thing as another in language, even though science may say there is no relationship between these things. Science can tell us that certain patterns exist as long as they are stable, isolated, and repeatable. Experience tells us that patterns exist in complex contexts, nested within other patterns—all in motion. We can choose to be aware of more or less of these patterns at will—unless we are insecure or overcome by fear. There are certain relationships within these higher patterns of information that science will be forever blind to because they are

multidetermined and related in ways that transcend the mechanical cause and effect patterns of science. In some relationships, things we see in the present are meaningfully correlated with past events, like metaphor, instead of causally. This is similar to when we read a book-information is definitely transferred based on the building of meaning, and the meaning can be allegorical or abstract. Furthermore, it can relate to real processes and patterns in life. We learn from stories about how the world works. This is similar to learning about ourselves when viewing animals. There is no scientifically (experimentally) demonstrable relationship between the behavior of a group of monkeys and our own more primitive behavioral patterns, but we can learn from them nonetheless because our patterns echo each other. We see some of ourselves in them-and important differences. Going farther back, we see our own behaviors in the behavior of bees which organize, protect their young, and forage for food-communicating the location of food to others upon their return. Even farther back, we see that all matter tends to form concentrations around which things move according to invisible forces we call gravity. There is also an evolutionary analogy here which we can learn from. If we study these patterns in all their rich complexity as we would study the behaviors and habitats of insects or lower primates, we can see a more raw, unadulterated reflection of that one underlying pattern to all reality. There is a binding factor to all of these things, and that is the universe we all live in and the principles and forces which shaped it. We can also see relationships within our own experiences which reflect meaning-where past events or salient contents of consciousness are correlated with current events around us. These are not repeated events (not specifically as in science, but they do repeat according to karma-like themes), and are marked by statistical rarity. Each is unique, but representing the "will", so to speak, of this force of consciousness in nature. They are similar in pattern to the organization of the universe around the unity behind existence—reflecting and moving according to these invisible centers or unities in repeating patterns. Earth is a "mirror-ball" for the singular light in this ultimate reality. As the previous sentence illustrates, it is a blessing that patterns echo and repeat so that we have plenty of symbols to eventually talk about these things. That is part of why I say the logos-echo is the most basic and important pattern in our universe. Only conscious experience can go into this realm. Science thus far has studied the "grammar" of our existence, while meaning seems to come from some message contained within this grammatical arena of natural laws and processes that ensure our existence. Meaning is the dynamic relationship of these things in interaction with the unity of consciousness, memory, reflection, and behavior. I have collected years of data showing these rare, complex relationships. Any one of them might be explained away eventually as coincidence, from a scientific perspective. Science is hopelessly inadequate for the task of inquiring about these events because they have no repeatable linearity to them. Even though they do not repeat in exact detail, they do repeat. In this we can see the overall pattern that is indicated. Like the Rosetta Stone, the information that exists in this way is written in

many different ways or on different levels, but they say essentially the same thing and so we can decode them by knowing how any one of the languages works. In this case, we know a lot about how all three of the languages work written, brain, and universe languages. The logos echo is the key to seeing the language of the universe.

Stable patterns exist in multidetermined complexities-much as chaos in mathematical theory shows (see chapter 1). In our everyday life, we know things like the "hope" diamond, or the "heart of the Ocean" from "Titanic" have intriguing meanings for us-we pay attention to (and sometimes lots of money for) rare things, things of meaning. Meaningful things tend to be portents of the future, or transcend time in their meaning. We call these things "timeless" or "priceless". They are products of, and physical symbols of, consciousness and its nature. When something becomes a focus of our consciousness, becomes woven with meaning and portent from past and future, it becomes the pinnacle in the topography of the current map of our consciousness. For example, a trained guard dog was once accidentally let out at an estate where I worked some 17 years ago. During my first week of work there, it had been barking and straining its chains to get at me every time I came into view. When it got out, I focused intently at the form of the dog-legs and turf flying behind it, hysterically snarling-I crouched down and braced for impact while protecting my neck. I got ready to grab the dog by the throat and break its neck. I was staring intently at the dog, and remember the incident well-even though it was 17 or so years ago. Fear can have a big effect on what you are conscious of. What you remember. Even fears like lack of food and shelter, social fears, etc. can have huge effects. Consciousness allows us to overcome fearful situations-that is why it comes into play and intently focuses (see topographical map) during, and its topography tends to conform to, things which have a bearing on our survival or existence. Fear carves up our consciousness according to our immediate survival needs, but at some level of learning these walls for our consciousness based on desire or fear (same thing really-greed stems from fear for example) can be transcended. A transformation or metamorphosis occurs. I had no choice as long as the dog was attacking-it was a matter of survival. I had to focus. Our older, more mechanical brains are kept active by being effective, and maintaining a fear of the unknown. Just as life moves forward and transcends fear in evolution, so do we within our own lives. A certain lack of emotional lability is necessary for this. Truth must eventually transcend fearful emotions from biological necessity in the same way that we can see the two worlds of science and specifics AND their overall meaning. Emotions must be subsumed in larger information from truth. Emotions are information. This explains the relative emotional flatness of northern Europeans which is sometimes interpreted (wrongly) as coldness. The main thing that highlights meaning in consciousness is that it is relevant to our future existence and survival. Some things contain the essence or spirit of larger things or things to come by capturing some intricate truth about them. This sort of foreshadowing is a result of unity working backward in time. As I finish this

book, you will come to see that this is the only possible explanation which can encompass the various phenomena presented in this book, and solve the binding problem.

In each of our lives, if we let our consciousness go where it may and pay attention to what we see in ways contrary to accepted patterns (more truthfully using objective memories-letting more information come to bear than we are trained to by objective testing, etc. in schools-a voluntary "loosening of associations" beyond our conditioning), personal meaning comes forth. Moreover, the uncanny nature of these events when compared to other events or contents of our consciousness minutes or hours before, shows a side to the functioning of consciousness covered over by the daily grind and hustle-bustle of our modern civilization and its demands of worldly, constricted organization. The sheer volume of these incidents I have collected serves to paint a definite picture of some other principles of consciousness at work beyond the pale of science as we know it. Certainly these events lift some sort of veil off of a possible purpose and direction of consciousness as an evolutionary process. Also, this makes ancient civilizations and religions much more intelligible-in fact, this is the only way they are intelligible. These ideas make the very existence of life more intelligible. These are the factors at work which make the universe itself intelligible to our inquiry. Science has nothing to say about religions and religious symbols, but the phenomena of consciousness certainly can shed some light in this area. Maybe at some future time, we will be able to feed enough data into a computer to allow it to calculate the probabilities of these events and therefore bring these real relationships and principles to light on a larger scale, but until then, their ephemeral existence in consciousness is all we have to go on.

It is difficult to see these things because all the organizations we see, live in, and are taught in life-from our learning of words, to our learning of history and the "objective" nature of the existence of things like colors, to our cloistering in cities away from nature--leads us to pay attention to the narrow path tread before. This leaves us in a giant chrysalis mentally. It keeps us as children-always looking to others for sustenance, engendering fear and cruelty. There is a time for children, but we must also go out into the raw world of experience and make our own way. The history of life on earth is much the same story-merely recapitulated and echoed in our life (see my "logos echo of unity" poster). People like to repeat the saying that we only use 1/10 of our brains, even though that is not technically true. From this standpoint, it is true in a way. Even the idea of a subconscious, or the "collective unconscious", becomes intelligible if we consider that memory transcends time and consciousness has a terrain that can be constricted by fears or various parts and subsets of the unity of our subjective experience. A great definition of fear is "narrow focus" for survival. Fear robs us of our own meaning. Fear is the diverting force off the path of life.

Anything we are focused on narrowly is direct evidence that we are fearful in some way. It is difficult to imagine your brain merrily wandering through

existence like some fantastic realm of infinite possibility, but that is the direction that all life and all consciousness has been headed. Consciousness has three aspects to consider-reminiscent of the trinity in Christendom, or the Trimurti in the Hindu religion. Our written language, our brains, and the universe itself constitute the three systems of existence-the primary "Logos Echo". The black form of Mecca is reminiscent of the Black holes-intense gravitational centers. It also in its pattern of interaction with pilgrims, attracts them to it, and they walk around it. It is a symbolic organizing force in their pattern. The list goes on... Consciousness solves all the misunderstandings and makes these "languages" of mankind intelligible. Mankind has been sort of crazy for truth which was not yet available-that's why we had so many wars and horrors. I, for one, am really glad we made it. I'm glad I found the words to express these thoughts "of God", as Einstein said so succinctly. The alternative is the suicide and death of insanity-echoed on the grand scale by wars and other horrors of various cultures through time. We certainly can't afford that now. Nuclear weapons are God's ultimatum-the written version at leastactually a foreknowledge of what happens if we don't "have faith" and continue on the path of overcoming via higher knowledge. The "mercy of God" is that the future echoes into the past. We should all really work to avoid this particular future literally foreshadowed in weapons of mass destruction. In an individual life, as we reach greater knowledge, forces are unleashed which have the potential to destroy us if we cannot face them, if we cannot face our fears. In an individual, fears are the foreshadowing of death—which can only be transcended by higher knowledge, or trusting the invisible patterns of abstract unities.

I have collected a lot of observational data that shows some backwardlooking phenomena in consciousness that linear-causal models of science cannot possibly explain. These happen daily, and are sometimes so thoroughly embedded in and woven into other events that they can't be adequately transcribed in all their subtle detail. Also, there cannot be the possibility that you saw a glimpse of something before, say a TV commercial, which subconsciously triggered a particular thought for which you then consciously see the imagery in the same TV commercial--That sort of thing. It takes a while to learn to attend to and rule these things out before hand. Also, I have found that these don't take a lot of thought, in general, to recognize them, but usually if you do start thinking about it, the meaning becomes only deeper. For example, I had been thinking recently about Mary Shelley writing the story of "Frankenstein". She had been on heroin at the time, or opium, I think. I began thinking about this because my wife talked about the absinthe the artists used in the "Moulin Rouge" movie she saw recently. I had been turning the idea over in my head about what "Frankenstein" symbolized, and how the drugs might have figured in. I had thought before that (before Moulin Rouge) how it seemed like an allegory for science (albeit a macabre one) that creates a larger living thing out of the toil, or remains, of generations past. The lightning could be sort of

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like the force of the future reaching back to give life by tweaking probabilities, etc. Anyway, what is important is not the accuracy of these potential analogies, but that while I was considering this I saw several things that coincided with it. The first was a Tiger Woods car commercial where he comes driving out of a castle with lightning etc. and says something like "you were expecting Igor?" the car was portrayed as combining disparate elements of different kinds of vehicles—a clear Frankenstein analogy. Then I saw a commercial for Honey Nut Cheerios with Frankenstein eating that cereal within a day or so of that. It is not like its Halloween. I don't watch a lot of TV either. Then, on top of that—further solidifying the coincidence of events into consciousness—I picked up a book to read a few pages before bed (one of several I am reading off and on) and read this passage in Stephen Kings book "On Writing":

Imagine, if you like, Frankensteins monster on its slab. Here comes lightning, not from the sky, but from a humble paragraph of English words. Maybe it's the first really good paragraph you ever wrote, something so fragile, yet full of possibility that you are frightened. You feel as Victor Frankenstein must have when the dead conglomeration of sewn-together spare parts suddenly opened its watery yellow eyes. Oh my god, its breathing, you realize. Maybe its even thinking.

I put the book down shortly after that and decided to write a paragraph or two as an intro for a novel-just off the cuff. I was reading a book about writing so I thought I would try it. I used the name Barry-I had never used this name before, but I had a friend at school once with this name, so I thought why not? After that I went to bed. When I woke up, I got on the web to check something and two headlines appeared talking about tropical storm "Barry" the very next morning. These things can happen rapidly and complexly-making them exceedingly difficult to record adequately. Something invariably gets left out that was part of the experience. I am convinced that these events happen much more frequently than we usually know or are fully aware of, we simply cannot attend to all of them and have a normal life—even though they are intrinsic to the nature and function of consciousness and a reflection of universal, transcendent unity which is echoed in consciousness. If I really pay attention to them-to the exclusion of everything else-they are constant. Like life was one big organism, and conscious thoughts tweak the past somehow. Fine tuning events into beautiful tapestries of coherent meanings organized by their future unity in consciousness. Since I could have picked up any of the books laying here, it just makes the coincidence that much more improbable. The idea of fortune cookies having anything to say and the I Ching in oriental mysticism are based on similar events, or glimpses of these sorts of phenomena, I'm sure. But you don't need a cookie or a special book. Life is like that.

Some of the events are so improbable, and they are so frequent, that there must be something behind them. Air is invisible, yet we can learn to see it as it is moving past our limbs or hair and entering our lungs through our mouths and

noses. Even though it is moving by us driven ultimately by the sun which drives all weather, we can feel it moving past us. We breathe air to sustain life, but we can feel it moving through our mouth or nose and gain information about air even though we are contacting it for the ultimate purpose of sustaining life. The coherent patterns surrounding our consciousness paint a picture of something invisible like this. Rare and complex parallel events in consciousness are not able to be investigated by science-especially since it seems like consciousness is traveling in the opposite direction to the one-way linear causality upon which all science is based. We may be able to devise scientific experiments to test the foundations of these theories. For example, "Left-brain" thinking may be more like our science-rarefied and one-way temporally, while "right-brain" thinking may be more concerned with patterns and emotions surrounding these kinds of complex events. The lateralization of the brain may be the coalescence of these two aspects of the universe in the human brain which gives rise to consciousness and science as we know it. Also, science is based on consensus and repeatability. It has nothing to say about the hope diamond or intricate, nested, personal meanings for interacting groups of people. These things are rare, one-time events. Science is descriptions of causal chains and relationships-the mechanics of the language of reality. If you let your consciousness flow, and let your eyes wander while thinking freely, paying attention to where your eyes settle, and keeping track of these things, you will begin to notice some pretty amazing stuff. Several days ago, I was thinking about a friend of mine named Henry in traffic on route 40 west of Knoxville. I was thinking about what a good friend he was when I started working at FedEx. The next thing I saw was a big semi truck with "Henry" in huge letters all across the side of the truck! Then, I drove up next to it, and noticed that the cab was from St. Louis-where Henry had moved to after he left FedEx. Sometimes they go like that-you look at more, follow them up, and the meaning gets deeper. When we see it restated, or more narrowly focused on our own internal meanings in our consciousness, it is made more meaningful. One event like this was really startling. I was driving a friend home from a party one night while I was in graduate school and it was raining really hard. We were just talking, and I started talking about how I wanted to paint my car (a Karmann Ghia) sort of a pearl white, and how I wanted to put a certain kind of wheel on it. We then drove up the entrance ramp while I was talking about this, and there were headlights of a car coming in the dark behind us as I accelerated onto the highway. As it drove up and passed us, not 30 seconds after my description, it was a Karmann Ghia exactly as I had just describedthe wheels, the color, everything exactly the same. The road was pretty deserted otherwise—it was raining hard late at night. I don't even want to begin to try to figure the odds on that-science says that was a "coincidence", nothing more. So many of these startling events have happened, which I have documented and learned to pay attention to (even in others' consciousness!), that this scientific view must be simply wrong. I think there is an untapped wealth of data to be had in this type of introspective, stream of consciousness and meaning "study".

It is the essence of the nature of consciousness. We reflect and organize around us as the universe itself is organized around the ultimate unity. That is how we will become god-men, or the "Ubermensch" of Nietzsche as we approach the Omega point of Tielhard de Chardin—but only if we follow the right path, the path of truth and knowledge above all else. These writers were the alchemists of this new age of mankind.

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Some more recent/selected data from years and thousands of recorded observations of the same type as first introduced in chapter 2, and numbered consecutively from there:

- 11) These things happen often in ways that we may not see if we don't know what to look for. Certain themes run through life and your thoughts, like karma in Hindu mythology. What was seen as karma may simply be a self-perpetuating theme within these dynamics of consciousness. You think about something, then you start noticing it all over and it sets up a cycle. Just yesterday before I wrote this example (July 31, 2001), I went to the store after work specifically to get some ginseng and they didn't have the kind I wanted. I looked all through the vitamins and ended up getting some other vitamins instead. I get vitamins or Ginseng only every few months. Then when I went home, I picked up the book "Hearts in Atlantis" (King, 1999) before bed and read within 5 pages of where I left off last time: "Suspended from the ceiling on a loop of dusty wire were cellophane packages, some marked ginseng oriental love root and others Spanish delite. Bobby wondered if they were vitamins of some kind. Why would they sell vitamins in a place like this?". I do not read a lot of stories these days because I am too busy, but this was an exception-my wife had read it, and I liked the title obviously because this is how I feel about the heart of the universe and consciousness—it is submerged and complex like a highly organized central city upon which roads converge that has a higher meaning or pattern to it than within the daily lives and tasks of the people in it. Normally, we would not notice these things because it takes a lot of mental effort beyond simply living your life-which is complicated enough. These things seemed meaningless in the past precisely because humanity had not built up it's own consciousness enough. We are meeting a new world; the "kingdom of heaven" in Christian mythologies.
- 12) These kinds of evidence—in each case—could easily be explained away by random chance. It is only when we recognize themes running through them, or gather lots of them together, that we can see that there is definitely something going on there. Earlier in that same book, which my wife bought and was just laying around so I picked it up, was this

passage: "take Isaac Asimov, for instance. Under the name of Paul French, Mr. Asimov wrote science fiction novels for kids about a space pilot named Lucky Starr, and they were pretty good. That was on page 75 (before the above example) and I read that right after considering and thinking about the a reference to an Isaac Asimov (1962) book "The Kingdom of the Sun" for this very paper for a couple of days before that. If we extrapolate from these events, it is easy to see how a larger consciousness might automatically "pull the strings" woven behind the scenes back in time to bootstrap itself up to existence creating both our religions and our science at the same time.

- 13) Another time, I wrote to Francis Crick and sent him a copy of an article I wrote about glial cells in the brain revolving around the concept of meaning (Romer, 1994). He wrote me back saying "you'll be amused to know that the word MEANING is written in large letters on the blackboard behind my desk". He read my article, and saw the centrality of meaning to the concepts there, while just prior to that he had been thinking about that very topic himself to the point of writing that word on the blackboard. How many times do you have to see something happening before you will acknowledge it as real? Especially if you can point to factors which might naturally obscure these perceptions—like scientific methodologies and survival contingencies competing for our attentions.
- 14) I had read about H.G. Wells "Time Machine" on page 208 in Stephen King's "Hearts in Atlantis" book. I had started thinking about time travel as a metaphor for consciousness, etc. and so the reference was meaningful for me. The next day, 08/03/01, I went out and got the mail. As I was looking through the Entertainment Weekly magazine of August 10, 2001, I saw a full page ad for "A Hallmark Channel World Premier Movie Event" called "The Infinite Worlds of H.G. Wells". It shows a man (Wells) with his hands surrounding a sphere (perfect symmetry) with lightning running all through inside it. Meaningful on many levels, considering what I have been writing about in these papers the last few days. MORE than just coincidence—a function of the principle of consciousness and its power in the universe.
- 15) Another very recent event happened as I was preparing this section of the book for presentation at the Skovde, Sweden 2001 conference "Toward a Science of Consciousness". I had bought an unusual-looking metallic gold "Phoenix" computer case on ebay about a year ago. It took me a long time to find a gold case. I had found it on ebay by chance which was cool and unexpected—I had previously gold-leafed a computer monitor case from my last computer in 1991 or so. I loved the idea of a gold computer. I put in special blue LED's in this one, and

generally customized it as I built the computer inside it. It is very artistic-looking with swooping lines and shapes. I had been having trouble with my old 1X CD-writer, so I asked for a new one for my birthday. I went to Best Buy to get a new keyboard (I spilled coffee into mine working on the poster for Skovde-even though I never usually bring any drinks near my computer) and saw a cheap Philips brand writer as I walked by the display simply noting the price. I liked Phillips partly because my brother had told me they invented CD technology. The pictures on the boxes were sort of faded and stylizedthey did not look gold at all from the picture. I usually shop around carefully and research brands, but I was very busy getting ready for this conference, so I told my wife "lets go get that writer-there's a rebate, its cheap, and it HAS to work better than my old one". After we left the store, I noticed as I opened the box in the car that it was METALLIC GOLD of the exact hue of my unusual case, and furthermore had the exact same swoopy-line design as the shapes on my case! (see photo). I have a great many of these events written down, this was just a recent one that I could take a picture of and illustrate easily.

16) To add in another recent car example, I was driving on route 14 going east at 8:40 AM on 12/10/02 thinking about the nature of heroic ideals and the origin of heroic impulses. I was actually picturing Greek statues and thinking about what they really meant-about transcending personal desire to be like the Greek concept of the "Logos"-that which breathed order or "fire" into the universe, gave it life. I was thinking that this is the true nature of strength—to be willing to forego personal relationships and desires for the overriding themes of truth. Strength is willingness to align your mind with the forces and principles of reality and to realize that pain is the price of birth. Animals willing to endure hardship, pain, and death, realize the nature of the universe enough to see that being subject to these things moves us closer to that which we truly love in the Logos. By getting closer to that, we gain the ultimate reality of an unutterable joy that is only echoed and symbolized by the pleasureable and life-enhancing effects of food or procreation. These things are stepping stones, just like pain is, to finding the reality symbolized by these things. We can learn to love the pain we feel if we realize it is teaching us something about ourselves and has important information in it. These kinds of ideas are surely the reasons religions have been ascetic and self-flagellating in many instances in the past. Hindu holy men lay on beds of nails or assume excruciating postures as acts of holiness. The highest heroic impulse is to transcend fears and pains, even to transcend the political forces of the times, to protect and nurture the growth of truth and perfection in our knowledge. I was thinking about this driving along with the sun in my eyes. I pulled up to a car in front of me which was

stopping at a stop light while deep in thought about these heroic ideas. Almost like an oboe quietly rising in tone to the point you notice it from nowhere in the middle of a symphony, the license plate on the car in front of me came into view from the glare of the sun, and entered my consciousness. The car was a gold Pathfinder SE, and the license plate said simply "STRONG".

- 17) I was at dinner talking with my family about the movie Shrek, which the kids had watched right before dinner. We were talking about how good Eddie Murphy was as the donkey (Dad said this). One of the last things I wrote in my book that day was all about the symbolic significance of the moon landing as a sort of collective acting out of our future. I was thinking about men actually being on the moon and what that symbolized in the larger scheme of things-since the moon reflects the sun (a unity) as a dimmer lesser approximation while we are in the dark. After dinner, I was putting my dishes in the sink when I noticed a large monarch butterfly on the screen of the TV in the other room-the tail end of a Brookfield Zoo butterfly exhibit commercial. I walked over for a minute to see this since I have had a longtime inordinate interest in butterflies, and the next thing that popped onto the screen was a commercial for a movie about a "man on the moon", "The Adventures of Pluto Nash-Man on the Moon" with Eddie Murphy as Pluto Nash.
- 18) Another movie example comes from the movie "Groundhog Day". On 8/27/02 at 4:30 PM, after thinking about Woodstock and going there on my motorcycle to see some of the Groundhog Day sites (my mother was in that movie, and it was one of my favorites), and for old time sake since I used to ride my little "War Eagle" lawn-mower engine minibike there along the railroad tracks as a kid, I pulled up to the intersection of Oak Street and Hillside where Country Club road to Woodstock starts. As I pulled up, a truck pulled across the intersection from Oak Street onto the road to Woodstock. I saw that the truck was for "DDS Logistics in Motion". The word Logistics comes from the original word logos in the Greek, and is applied to calculations or the working out of the problems of people and materials in the purposes at hand. It hit me that this is what life does in general, and I already thought it was cool that it was turning toward Woodstock because of this, and the fact that I had been thinking about that movie a lot that day as a metaphor for life on Earth. Then I noticed that the truck was from Punxsutawney PA—the name of the town and place where Groundhog Day was supposed to take place! Woodstock was supposed to be Punxsutawney PA in that movie. Later that night, the cameraman from the news crew in the movie "Groundhog Day" was on David Letterman with the Dixie Chicks-a band I really like, I have their album "Wide

Open Spaces". Now jump ahead to 11/20/02 when I was reading over those Groundhog Day notes to include in the book. On this day, I had read over these notes to find and mark examples to include in the book when I stopped to watch the Victoria's Secret Angels fashion show. That same actor from the movie was actually on the Victoria's Secret fashion show too that same night (Chris Elliott).

19) I had gone to the August meeting of the Experimental Aircraft Association (EAA) Barrington chapter with my dad one evening in 2002. Dad invited me to the meeting before, but I staved home to write because he wasn't sure who was going to be there and I had a lot to do. It turned out to be an SR71 blackbird pilot-the fastest airplane ever made. That is my favorite airplane. I went to the meeting next time for sure—I could not believe I missed that... There was a guy named Clarence at that September meeting who gave a talk about the early history of aviation. He had been involved in many historic aviation events. The first thing I noticed is that he was talking about the superiority of the German weaponry and fighting in World War 2. He talked about how our Sherman tanks had standing orders to turn and run if they encountered a Panther tank—unless there was a group of ten or more Shermans. I had recently been talking about the superiority of the knowledge, technology, and weaponry of the Germans in World War 2 myself. I had even put together a model of a German ME262 in Knoxville right before we moved-the world's first operational jet aircraft. Anyway, Clarence continued to talk about a great many really interesting things. He had met lots of historical figures in aviation history and had flown since he was a child. Prior to this meeting, I had gone to the EAA Oshkosh 2002 air show in Wisconsin. I had taken a lot of pictures of 2 different cars that also converted to airplanes that they had up there. One was an older one, and the other was a Lotus Esprit which a guy was turning into an airplane. I have always been interested in the car-plane concept. I had recently found an issue of Air and Space magazine (September, 2000) which some pilots had brought in and left in our break room at work at FedEx in Knoxville before we moved. The magazine had a picture of a car-plane on the cover and it said "American Dream" next to that. I picked up the magazine also because I have been fascinated with the concept of dreams toowaking ones like LeGuin's "Lathe of Heaven" (a bunch of recent events related to this one in my notes) and also the dreamtime of the Aborigines, etc. I had also attended Stephen Laberge's seminar on Lucid Dreaming at Tucson 2002, and been interested in the biology of lucid dreaming before that (Brigite Holzinger, 2001 Tucson conference, etc.). I also liked the portrayal of a sky and ground vehicle metaphorically. Anyway, all of these things led me to take the magazine home with me from the break room one night. Anyway, we

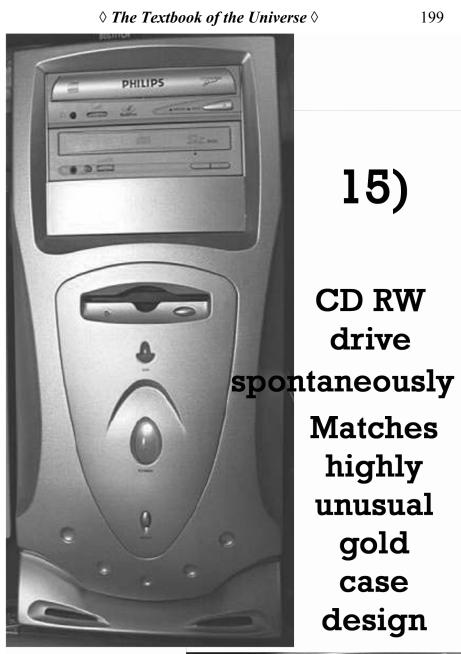
moved soon after that and that was the only magazine out of hundreds that I kept out of storage. I had put it in my file drawer on my computer desk partly because there were a few synchronistic articles in it besides the car-plane one-such as the SR-2 paraglider altitude attempt (see my earlier notes on the paraglider synchronicities in Knoxville around this time). And because of the Steven F. National Air and Space center of the Smithsonian Institution. The Hope Diamond and the Air and Space Center were my favorite when we visited there a few years ago. (As I was transcribing this from my September notes, I realized that my Mom just gave me a book about the Hope Diamond Wednesday night 12/11/02 from the Smithsonian—she went there over Thanksgiving when she visited Ron and remembered that I had a picture of the Hope I sent her before that I also have on my older website at Geocities. In this book, I was reading early morning at work on 12/12/02, it showed it paired with the Star of the East diamond hanging below it which I had never seen before-a meaningful event in itself.) Anyway, at the August meeting when Clarence was giving his talk about his involvement in the history of flying, he began to talk about when he flew the "Car-plane" for a photography session. I thought it was amazing enough that he was talking about a car-plane, but then he pulled out the exact same issue of Air and Space which I had brought up from Knoxville. Then he said that he was the one in the pictures who flew the car! There is a connection to things beyond space-time, there is a coherence there which is normally transparent and is the key to the origin of consciousness. We are close to the creator in our consciousness and so we take part in the creation like fingers on the hand of God. It is difficult to see in this realm without huge amounts of information and knowledge, in combination with the right emotional and intellectual endowment from the DNA we inherit. This is a whole continent of intellectual commerce which has been invisible in the past, but is now landing on Earth to make us realize it has always been here all along. We can see that it has by seeing it reflected in the symbols and stories of our history and the history of other civilizations. Even in the history of life itself.

20) I went to see "Spy Kids 2" yesterday in Woodstock, IL, and we parked in front of where the diner and plaque on the ground are for where they filmed the movie "Groundhog Day". In the movie Spy Kids 2, there was a guy named "Romero" who lived on a secret island, cloaked by a device that looked like a Celtic sunwheel symbol. He was a genetic expert, and there was a big pyramid on the island too. Meagan and I had just watched Dusk 'til Dawn, with that pyramid ending in it, a few days ago. Of course, I had also then written more about pyramid symbolism in my book recently. Another interesting thing is that Romero was hiding from his own creations, watching them in miniature

clones from across the island that echoed the movements of the larger organisms. He had a smaller model of the island he watched to see what they were doing. I had just gone over "Formative Causation" in my book and how genetic similarity plays a role in that. I extend the concept to the brain cells being exactly alike too. Romero was sort of like the creator guy in the movie-had glasses like mine too. On the way there we had passed the "Congregation of the Resurrection" and I said "There's the Montessori School"-I was just being funny and said it was a Montessori school again after my wife tried to "correct" me. After the movie, we ended up taking the back exit. It went through a hall and out the back of the theatre. Lots of folks went immediately to the right and over a split-rail type fence—a path which went much more directly across and to the front of the theatre where we (and others) had parked. Instead, I walked to the left down a small gravel path and around and down a short road in a parking lot there. On the right, we passed 4 or 5 cars in the small parking lot before exiting it on the short road. There was one black van there among those 4 or 5 cars with one sticker on the bumper. It said: "Kids (picture of a heart) Montessori"-kids love Montessori! I said to my wife: "see-kids love Montessori". That was the only sticker on the 5 cars there and the only cars we walked past the back of since my earlier Montessori comments. My wife had said something about all the kids watching the movie there like it was "kidville" or something. Movies are educational for kids too. These factors all combined to make that a highly interrelated and dream-like event-full of meaning. More examples of these experiences can also be found later in chapter 6.

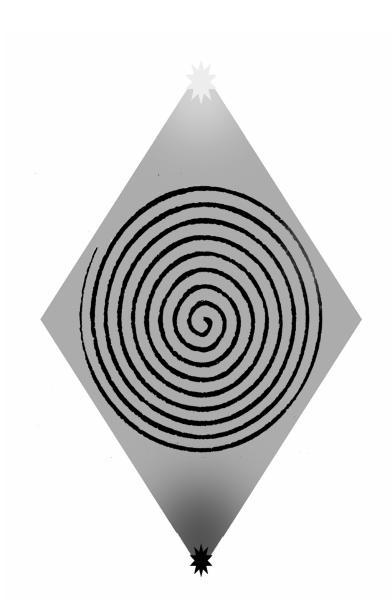
It seems like consciousness does commerce with the past beyond time and space, or else there is a consciousness in the future that perceives us back in our time and sets these events up that we have called "God". The simple explanation that fits with the transcendent nature of consciousness and the unity threaded through the universe is that our consciousness is connected to the world of reality in ways we cannot directly see, and furthermore this connection has an effect, or coordinating power, over the past which partially shapes the meaning and coherence of the present. The stone dropped in a pond analogy applies here. Perhaps these events are just the coherence of a greater ocean of consciousness of which we are a part. That explanation is a bit more (needlessly) complex, however. The best explanation is the efficacy of consciousness and reality share echoes of meaning because of the oneness threaded through everything--which gives rise to the "Logos Echo" effect described in the next chapter.





Both shape and color contribute to the overall coherence of this seemingly, or otherwise, random event





My soul can find no staircase to heaven unless it be through Earth's loveliness

--Michelangelo (1475-1564)



CHAPTER 5

The "Logos Echo" of Unity in the Universe

As stated in previous chapters, unity is the most salient characteristic of consciousness. Brain science shows us that many different areas of the brain are involved in behaviors and experiences (see Kandel and Schwartz, 1985). Verbally, we can describe any aspect of an experience from the smallest visual geometrical feature all the way up to the overall themes through time, even though these things are mediated by different brain areas. We can focus on any one of them and describe it with speech, using parts of the brain involved in speech. One way of understanding and accounting for this in light of the contrary evidence of brain science, and the science of the world that says in effect, that everything is separate, is to say that unity is an underlying principle of the entire universe-from the wider space-time universe and its matter, to brains, to language. It is a fundamental factor that has been left out of our inquiry-similar to the way we used physics projected out of our brains onto the way the world worked in order to understand it, without actually "knowing" physics. Physics was used all the time, but was transparent even though it is a very basic pattern common to many organisms. The binding problem is far from simply being a problem of just the brain and mind. This unity binding our experience is something that touches upon all of our knowledge of how the world works, and could provide a simple explanation of why everything exists and works as it does. Natural laws have symmetry, and an atom of gold in one location behaves like an atom of gold in another location. I think this fact, along with many others in a similar vein (see Weyl, 1952), shows that these atoms are facets of the same thing. These are natural manifestations of the unity woven through the universe, although people have not asked why substances and forms are organized in common patterns all over the universe before. A great unity is woven throughout all aspects of the universe. We cannot see it directly, just as we cannot see consciousness when we look at a brain. We also cannot see light passing directly before our eyes—it must reflect off of something else. We can find lots of evidence for this organizational unity by comparing the

common general organizational principles of language, brains, and the universe. They reflect each other.

Physicists search for the ultimate particle or string that ultimately constitutes the one basic building block of reality. Astrophysicists say that the universe arose from a singularity-essentially an absolute unity which included all of the time and space (potential) which was created and expanded from this original absolute unity. Gravity is like a symbol or echo of this unity. The unity in the common ancestral origin of life echoes the parallel unity of the common origin of the matter of the universe also from a point. The parallel carbon-based DNA, and basic cellular structures found throughout life echoes the common features and laws found everywhere within the universe arising from the common point of the big bang, rather than from a common ancestor. The features in life which kept it alive and moving into the future were repeated and proliferated. The natural laws which eventually gave rise to us through the processes of the universe were also selected out and repeated from the set of the possible. Stars, and the planets that orbit them, are another unity as central symbol. The sun gives light and life to the earth, and all our large molecules were made within a previous sun's sphere—a sun that exploded (like the big bang again-within the original sphere, or bubble, of which all natural law and space-time was made). It becomes apparent when we attend to the repeating themes of reality that everything in the universe is actually a facet of the same thing—One thing woven into and behind all things. The mirror of the forms of matter and its processes, the ability of brains to comprehend, and the possibility of a meaningful language, all arise from this essential unity beyond time and space. Forms echo through this unity. Coherence is a property of the entire universe, and our brains arose as an echo of this overall pattern. Our brains are an echo of this quality of space-time distribution and unity in the universe, which we echo again in our dynamic of consciousness and language. The universe is a language to the unity within it (or beyond it) just as our written language reflects our consciousness. Behaviors are only intelligible via purposes in humans and in the universe. The unseen purpose in a man drives the construction of a skyscraper, just as the unseen natural law drives matter into concentrations on a small scale and this is made intelligible along with the other behaviors in the universe by this singular unified force behind everything which only becomes visible when our knowledge reaches a certain point. The universe was built to be intelligible so that the natural accumulation of knowledge in life could lead us to know the creator, or ultimate law, by these works.

We are here because a bubble formed in that unity—a self-reflective "hall of mirrors" where patterns repeat because of the underlying unity that everything has its roots in like all plants have roots in the sphere of the Earth, or like certain old California cedars share roots underground. The original unity did not cease to exist at the big bang, but rather spread out to become immanent everywhere—to provide the basis for the coherence in reality. Forms echo in this unity through time and space like a rock dropped in a calm pond causes

rings of concentric waves to move out from the mass dropped in the center. The original bubble of the big bang-that tiny sphere-had infinite connectivity and unity along with infinite possibility-constrained by what it would produce in the future. This was the first spreading out and distribution of ultimate unity. The natural laws we know congealed out of this mini "everything" computer-this ultimately connected node of mechanical meaning that all subsequent events in the universe get their coherence and basic physical form from. These repeating patterns are the most basic aspect of existence. But where do the specific values and forms in the universe come from? Just as our behaviors, development, and learning find their vector in the future purposes or adulthood we eventually reach, the unity of truth and knowledge in transcendent consciousness is the purpose and goal of the processes of the universe that define them. We will reach godhood in that the universe was originated and constructed by us and for us when we reach that point. The organizing force of unity within space-time works on probabilities from the beginning. That will was the beginning.

Future life and consciousness—which nudges probabilities and transcends space-time-selected the forms of these laws and constants of nature and all its particles. In an echo of this, every cell in our body contains a set of DNA that is exactly alike, and originally starts from one cell-a unity. The DNA-selected by certain forces in evolution such as a tendency toward unity or meaning/consciousness—is a set of instructions that gets distributed to every cell in the growing organism. Each cell gets its form and position in the organism according to the purposes of the organism to continue existing in time. DNA is distributed unity just like natural law everywhere in the universe from the original "bubble" of space-time or the logos-echo of meaning. A whole new person can be cloned from the DNA of one of these single cells-all of the information for a whole organism is contained in each cell everywhere in the body hologram-like. The echo of the original unity is written in every cell, just like the symmetry and salience of natural law echoes, and is informed by, the original unity in the universe. The universe actually is a giant teaching machine, which our own lives and structures are part of. We say children have "potential", and choose the right path—ostensibly to find a meaningful life. All these threads running through our lives-right down to the fact that literary devices like allegory and metaphor exist-arise because of the inherent unity behind the space-time reality we find ourselves embedded in, and the consequent echo of forms. This unity has specific features which we can describe, and which are threaded throughout the universe and reflected in everything. In the echo of forms, we see that time and space are an illusory canvas upon which the meaning of unity is written in the colorful language of reality. Reality is fundamentally language-like. The coherence and comprehensibility of that language is evidence of the basic nature of consciousness in relation to existence.

This pattern of patterns, or metapattern, is the "logos echo"—after the "Logos" or divine writing of the universe of the ancient Greeks. Since time and

space were created along with the universe, at some level and in some "place" beyond time and space, everything exists as one-shares it's nature. Furthermore, it is a place of infinite possibility. It must be in this place that the essence of our consciousness originates, because that is exactly what consciousness is. A computer screen has no meaning, no coherence, no unity, without a consciousness peering at it, binding it together. The most defining feature of consciousness is that it transcends time and space to bring things together-whether in the brain tissue, in the universe we see, or in our written language, science, and art. The deeper you look into this view, the more interesting relationships you find. It bears repeating here that the very essence of vision is that we see things always back in time-because light takes time to reach our eyes-yet our bodies always need to travel towards things we see, which are therefore in the future for us, because it takes time to move toward them. We move towards these things and intercept their futures as a result of what we see in the "past" in our vision. This situation of vision echoes almost precisely in general form the nature of our memory in relation to our behaviors. All prediction is based on these types of principles, and none of them would work (there would be no coherence) without the logos echo from the unity which enables all symbols and learning. On the grand scale of things, we see foreshadowing in world events. Everything about consciousness is time and space transcending, and this principle does not stop at the limit of our biological brains. Our brains are made out of the same stuff as the universe. We have memory which knits together events of the past, we make plans, we find meaning-all of it dependent on the logos echo created by inherent unity. Our purposes and thoughts are part of natural law, and so is the existence of meaning. We remember themes and general things easier than specifics, perhaps through the logos echo property of the universe. The best way to remember specifics is to embed them in a larger meaning. We call these "mnemonic devices". Much of our learning is (or should be) based on loose analogy and metaphor-because new things generally follow similar patterns to old or other things. The quality of the world that automatically teaches is analogy and metaphor. A teacher of our children in a classroom might use these tools in our language because she knows implicitly the importance of these relationships-she sees the beauty in children's stories. These things make good teachers, these perceptions of these larger patterns in things. For example, I was explaining recently to my son that bodies are made of cells by using the analogy of 'tiny balloons" full of stuff. Trying to explain consciousness, on the other hand, using this or that portion of the distributed space-time universe will not work by itself. This is why we are having problems with exactly this procedure. We have used hydraulic, telegraph wire, and computer analogies to no avail. These explanations will always be partial or incomplete-as Godel's theorem in mathematics shows about systems of mathematical axioms, or the inaccuracies of metaphor or analogy that arise when you focus on detail, or the "messiness" of woven-together forms and shapes compared to classic Platonic ideals. The pitfalls in all of these explanations is their incompleteness-their

symbolic nature. We need to make a leap into a larger world view in order for the missing information to become available.

When it comes to investigating consciousness, we can make an analogy to a dreamer that is useful in seeing these things. The details are like the dreamers particular personal experiences, while the grand themes behind these details are the real focus of scrutiny for investigators, and interpreters. Actual dreams have more to do with metaphors and meaning pulled out of imagination/infinite possibility of the dreamer, loosely following the constraints laid down by memories, and particulars from the day, etc. Meaning is seen as the guiding factor behind the organization of the specifics of the dream which symbolize the meanings and purposes of the dreamer. Natural science is the oppositefocusing on single variables, and themes of narrow aspects of the overall picture, not metaphorical themes. Unity and meaning is what is lacking in science, and is one of the primary reasons the different divisions of science (from physics to anthropology) are so separate. There is nothing wrong, and everything to gain from studying the accuracy and grammar, and the roots of the writing of the universe. Unity and its meaning are a real "linguistic" principle of the universe, not just a device of poets or dreamers. Consciousness is the progressive unity moving back toward infinite possibility-constrained by, and reflected in, cosmic, biological, and linguistic evolution. If you carry the seed of anthropic cosmological ideas to their logical conclusion through all life and even through civilization, all of reality is the stable dream of a higher consciousness beyond, and immanent in, space-time. It is the type of dream that gives rise to the dreamer himself-just as our own purposes organize our own behaviors towards those ends. The universe is exactly like that, and can only be understood from this theoretical framework. The "dreamer" here in this universe is the ultimate consciousness. Our linear-causality view of the world is basically one-sided and survival-oriented. It is useful to see time as not flowing, but separating things. It is a collapse of infinite possibility into finite forms as a reference point for the development of infinite awareness-which is infinite possibility and unity married to space time forms in a mind. What flows "back" in time is the probabilistic selection or "command" and ordering of forms that become higher consciousness later-which explains the intelligibility of the universe as being necessary for us to learn from and to take over directly when we are mature. This is also seen in the progressive rise and fall of species or civilizations leading up to the greatest organism and civilization, or the march of neurons uncannily directed into position in a developing brain by glial cells to become a brain-the center of a developing consciousness. In cosmology, astrophysicists search for evidence of whether the universe is "closed"meaning that gravity will overcome the outward expansion of the universe to collapse it to a point again. I am saying that the universe may be open physically, but that a "ghost" of a collapse into a point, an ultimate unified consciousness, is the closure and purpose of the universe. In other words, this is the working-backward-in-time (from our forward-looking survival perspective) or beyond-time origin of the creation explosion itself. In this view, this would

be the ultimate overriding echo in the universe, and the big bang was a beginning and also a literary device, and a foreshadowing from the human flow-of-time viewpoint. The consciousness that arises will be so complete and intense that it will essentially be the same thing as the creation from infinite possibility in the new universe just after the big bang. This will be the ultimate uroboros, which literally created itself. Existence has portents, just like foreshadowing as a literary device. All of them work via the logos-echo. The purpose of the universe is reflected everywhere within it. Existence is a sort of dream that starts more like a senseless, unconscious, computer, but ends more like a lucid dream when consciousness of it all arises. Many predictions should be able to be made from these theories. For example, full consciousness should be able to change things back in time, as it has been doing from its place already. We necessarily would not see these things until our own consciousness developed beyond its biological and linear-causal constraints-aided and nurtured both by our large brains and our "information society". In other words, if our consciousness is small we would not be able to see the large things or large themes at work in the universe. There are many analogies for this unity in our experience which serve as evidence for a real principle of our universesuch as the repeating cragginess of a fractal coastline, or an ant hill compared to a human community. We know what "free as a bird" means because the logos echo principle in our brains allows the transfer of the essential unity binding that metaphor. This type of transcending unity is the source of all meaning. This is a principle of something unseen, and intangible, that we surmise is there by the order of what we can see with our biologically limited viewpoint. Without this principle of logos echo from this unity, our brains, our universe, our language, and our consciousness could not exist. An unseen principle does not get more real than that. The logos echo is the most basic principle of the universe.

Our brains developed because of this logos-echo principle—we see it in the fact that the same areas of the brain are used for many different perceptions. We see it in studies that show particular cells active in certain fragmentary pattern detections. (Penfield's brain-stimulation studies, or Hubel and Weisel, 1962). Each cell, in this view, is like a node of echo. Also, Karl Lashley's studies of cortex lesions show a loss of detail, not loss of recognition of overall patterns. Consciousness is that literal beyond-time factor that ties all this disparate tissue and activity together. Consciousness literally transcends space-time, making all cells one by referring back thru time to the original cell. Farther back in time, all life is connected by a common ancestor and is actually one big organism. We find multiple consciousness-nodes as we travel back. This could explain quite neatly the old concept of "racial" memory, and Jung's "collective unconscious" as well. The DNA of our brains constrains our behavior by pain and fear-installed, and shaped by past organisms who did not make it, or ceased to exist. It is as if the great organism of life, in moving toward making greater flexibility within natural law from the birth of the universe, experimented with "ideas"-learning and remembering via the DNA. It is easy

to see how this great organism of life, and really the universe too—universe and life serve the same purpose—has a direction and purpose evidenced by the logos echo, and our consciousness. In life, the one driving force of evolution is toward the greater creativity and flexibility found in higher consciousness. A greater coherence and working unity of all things.

By using imagination, we use and transform the past in our memories to create something new. We travel back in time. On a larger scale, using the principle of this echo, it is easy to see the purpose of the great organism of life in such things as the form of trees, the heliotropism of plants, the shapes of antlers and horns, etc-as long as you don't get bogged down by details and you also try to press as many analogies together as you can to glean true ultimate meaning in these distributed things of nature. They clearly have meaning. For example—a millipede is a long organism with hundreds of legs. and this is like the organism of life extending through time. Not just poetic imagery, but really and truly reflecting this information in a sort of echo of form from the future. Rupert Sheldrakes "formative causation" (1981) is really an early apprehension of this future state creating general paths for things in order for it to exist. The idea of Karma is similar to this, only expanded to include things as well as people. Even rare gold running in veins in the ground, and looking like the sun, has meaning in its looks, location, timelessness, and rarity. Poets are really scientists of meaning. Diamonds are symbols of higher consciousness, made of carbon, organized by intense temperature and pressure which symbolizes the struggle of life, etc. transformed into a translucent, unscratchable, rainbow-reflecting gem, a caterpillar eats and eats from trees or plants growing toward the sun only to transform into a beautiful butterfly with colorful wings flying on invisible winds toward the sky the realm of the sunnow drinking the clear distilled nectar of colorful flowers each reflecting different colors of the sun through a spiral probiscus-the list goes on and on limited only by the practical constraints of the grammar of the ecosystem. The economic value of rare gold and diamonds, etc. is based on their symbolic relationship to these overall patterns of nature. That is why these things are worthless to most of the animal kingdom and to the more primitive peoples of the earth. It is also why kings originally adorned themselves with gold and jewels, rather than the lower interpretation from minds not seeing these greater patterns that it is simply a self-centered display of political and financial power. Rebellion against kings was often fomented on the basis of the jealousy of the people when they became hungry and who only saw these things as a source of financial wealth to get food, rather than as a source of teaching, or spiritual food. The epitome of this is in the conquistadores who sacked Aztec and Mayan civilizations to melt down the gold to fund the political powers of Europe. We must transcend all these things-higher man must come and low motivations must fall away forever from our path. Rare events have greater value and meaning to us because we realize a higher consciousness is reflected in them by their singularity. They were chosen out of the field of possibility. The favor and will of God also can lead to ego which can also blind you and stop you on this

larger path. I have met many such people, but there is a place for that too, good reasons to be rich and proud at times—even though these people's primary pitfall is that they cannot imagine a favored soul completely unconcerned about money, fame, fortune, or competition. People with successful strategies tend to evaluate others according to their own views and experiences—according to how wealthy and therefore "smart" they are for example. At some level, most of us desire to know this greater consciousness deeper than anything else we do. It has the most motivational significance for us. We call it God, or truth. If we look at things the right way, it has always been in us, it is only now that we are seeing it through our inner and outer telescopes.

The Sun is kind of the central metaphor of higher consciousness on earth (obviously) and certainly is the source of all energy and life here. If we look at the sun as truly a symbol of the move towards higher consciousness, or of reality revolving around this principle, many hidden things become clear. Indians used to stare at the sun until they passed out in certain of their rituals, and spoke of the "Manitou" in all things. That Manitou is evidence of something beyond the time scales presented to us by our limited biological consciousness-the logos echo. The myth of Icarus and Deadalus is another example of sun imagery and transcendence made intelligible by this view. Kings of the Earth have been frequently symbolized by the Sun, as stated earlier. In ancient Egyptian paintings (from Akhenaton's period) we see a sun disk with many hands at the ends of lines reaching down from the sun over the people depicted. This is a symbol of the unity contained in consciousness. These people were not stupid-they saw "magic" and meaning in these symbols. They knew a higher consciousness was coming, and they built pyramids symbolizing this evolution towards a higher unity-towards the infinite sky, realm of the sun. We tend to think of things more immediately in our age, but then, they looked far into the future by seeing meaning in the echoes from it in their hearts, by being echoes of it. Our science today helps us look back better than any of them by far. We have the resolve and knowledge capacity to get there for the first time since the beginning. The organism of life was working through them, so to speak. They buried treasures in the sands of time-sent them forward in time to the "afterlife". Their kings were seen as "gods" on earth because the future great consciousness (we are experiencing now in the information explosion) reached back through the organism of life to shape what they did and saw by affecting the motivational relevance of things. They realized how much their lives were for the future—to install the portents and monoliths of a new age to come (like in the movie "2001 a Space Odyssey"). The people knew it too-that's why the kings had so much power, they were "enlightened". The greater consciousness of the future chose the form of what they did-they were it's memory in a way, since all memories are really echoes into the future consciousness where they provide information. We see the same thing with the mesa-pictures of the South American Indiansfacing the sky, and the sun-displaying their works, their interpretations, to the future--as a child might follow its heart and sing a tune. They knew what was

important, like every individual does for their own future, as a people, as one. They knew what was coming—they even (Incas) had a myth of "Viracocha", the white-skinned, bearded "creator god" who taught them civilization. Having faith and hope are very important, because our biological brains are so full of animal urges and fears and hungers from our past that seem to want to prevent us from reaching the future—at least until we have reached a point in our knowledge to really and truly overcome them. Denying our "animal" nature for the sake of higher truth signals the transition from computer/survival/building phase to the higher-consciousness phase evidenced by our information-explosion, and our exponential advance in knowledge of recent years. We needed to accumulate information in civilization to read what the universe was saying, and it has been waiting for us for billions of years like the monolith buried on the moon in 2001, a Space Odyssey. Unity of knowledge overcomes all things—that's why faith in "God" can help you through the "valley of the shadow of death" still contained within our genes.

It seems apparent that these things were hidden to us until we got the "vocabulary and grammar" right using our science. In the Bible, Jesus said something like how can I tell you things of heaven, when I tell you things of earth and you don't believe? They could not comprehend it. The great consciousness directing all life seemed to "know" that a little knowledge is a dangerous thing-much like we put blinders on horses so they don't get spooked, or use covered bridges. We focused backward with scientific isolation of variables and also with our great telescopes—to keep us moving forward, to keep raw emotion and ego from knocking us off the path. This is very much like the idea of John Barrow's and Frank Tipler's "Anthropic Cosmology" (1986)—only here, I say consciousness in the future drew these things into being for its own existence automatically, instead of it being a remarkable coincidence. There is a force in the universe that reaches back and controls the unfolding of things in broad strokes, and this time-transcending future force is consciousness. It becomes patently obvious that religions and science are two sides to the same coin—which is the accurate reading of the message written in all reality beyond ego. It is all about the meaning in things and the logos echo of meaning. If we remove the constraint of time moving forward from our narrow biology, we see that we are more like salmon swimming upstream towards the source of consciousness from which all things flow. As in Julian Jaynes book, "The Origin of Consciousness in the Breakdown of the Bicameral Mind" (1976), Consciousness was born in life as the great body of life progressed through the ages. We probably did automatically follow the "voices" of gods back then as he says—just maybe not actually heard, but motivationally felt-like an ant follows a pheromone trail, or a honevbee follows the sun. We followed blind larger patterns too-until the people of western civilization finally hit on the key formulas and far vision seen in the world around them. They thus became the actual "chosen" of the creator with the will and means to get there-not just assuming this title for ritual or solidarity reasons. We see reflections of this greater path in the shapes of

Buddhist Stupas, various temples, and also pyramids. We acquired enough consciousness to control our own destinies to an extent, instead of acting automatically like a hill of ants, school of fish, or flock of geese. We became writers, and creators, of the things in our lives. We made things that reflected what our consciousness knew outward again-made our own symbols, and ratcheted ourselves up to higher consciousness on these. "Gods" in religions of the past were these unseen controlling factors of higher consciousness, which ultimately are aspects of God by definition—just like fingers are connected by a palm, an arm, and ultimately a brain which contains the purposes. Natural laws are "gods" too—to the matter of the universe, just like certain stable biological processes and organs are necessary for life. God echoes everywhere. The whole idea of "false idols" being negative is to warn of getting stuck along the way at the symbols, not progressing, etc. to realize the great living and moving truth behind all symbols. Peterson's (1999) book discusses this process of progression to knowledge, and the opposition to it in fearful civilizations. Dr. Peterson accurately defines our ideas of good and evil in reference to this path—and points out this aspect through our history and mythologies. Stasis in the process of moving toward knowledge is what is seen as "hell". Although he does not talk about a unity or force in the universe drawing us forward, or a language quality to the universe, etc. it is an excellent portrayal of the struggle toward knowledge in life-containing uncanny parallels to a lot of my thinking. He acknowledges the importance of consciousness to all progress—as a force that "slays the dragon" and brings something new into being, or "saves the fair maiden". But all reality is like a big book of symbols stuck in time we must get past. Like the Tibetan Buddhists assert, all really is illusion in this respect. B. Allan Wallace states in his aptly named book "Choosing Reality" the yearning for truth in combination with a wish to help others;

> ...implicitly acknowledges the interdependence of self and others and the kinship of all that lives, and is the sole motivation with which one can attain the full spiritual awakening of a Buddha. Just as it is the supreme motivation for spiritual practice, so is it the finest incentive for scientific research.

Religious leaders who had "higher consciousness" were all similar in their general way of relating to reality (see Living Buddha, Living Christ by Thich Nhat Hanh (1995), for example).

Consciousness is the ultimate meaning in brain tissue in the same way as there is real meaning to the universe—obviously from the time of the big bang, before time was created, in that ultimate unity. For this same reason, our language is possible. Without fundamental unity there is no representation across forms. Forms echo, and that very echo is the most meaningful and tangible thing about the universe. Consciousness is the center of meaning residing in our brains. Our particular brain is the center of meaning in a larger consciousness. Really, the natural laws of the universe are written in us because

we arose in the universe and are a functional part of it. A human brain is the nexus, a portal, for these things. The natural laws are naturally apparent in our brains because the force/reflection that molded them was this property of this universe we find in the repeating of patterns—the logos echo. The actual birth of the universe is recapitulated in the singular ancestral origin of life. The origin of a person in the single cell created at conception recapitulates the phylogeny of all life in its common origins. The developing embryo looks like various animal embryos along the way, etc. (Ernst Haeckel's "recapitulation of phylogeny" again). The fact that we have single-cell organisms still with us is like the unity still with us threaded through reality. They help sustain us and are part of us—we can also learn from them just as our own organs or cells are necessary for the future us. A virus could not exist without cells to attach to in a body—an environment was created for them by the bodies of larger organisms, and they became a sort of rebel life (pattern?), or the embodiment of destruction.

The idea of looking in at brains and dissecting their activity automatically creates deceptions. A brain is something that operates with a large "beyond time" component-which by definition is not available upon looking at brains with our here-and-now apparatus of perception intended for another unrelated (to understanding brains) purpose: survival. Another way of saying survival is to say that we maintain the theatre of our existence. Our brains create the illusion of time moving by, and linear causality is carved out by them from actual causality which moves everywhere at once. Evidence for this comes from looking for a coherence, a meaning to things happening in our universe and our civilizations. We see the unity of the origin of things-we see that unity spread everywhere in the stable, coherent, properties of our world. The forms of life, the forms of civilization, and the forms of language are woven into each other. Religions all seek to describe the importance of conscious unity, or higher consciousness-of consciousness in creation. Consciousness is the (opposite) mirror image of the big bang within us. The image of the unity in the future that pulled the universe out of the sea of infinite possibility, and constructed it to give rise to consciousness.

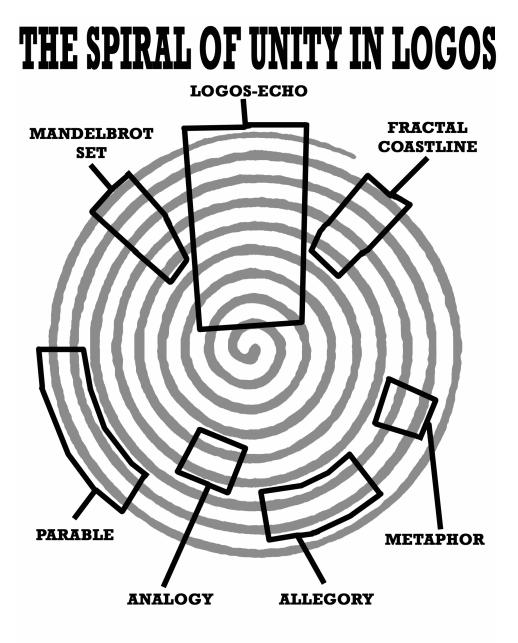
We find evidence in the remarkable coincidences that led to the exact properties of the universe needed for the formation of life, and in the utter complexity of eyes and brains toward greater meaning and greater levels of consciousness. Stephen Hawking quotes Sheldon Glashow in reference to a grand unified theory—the holy grail of physics: "When the (early) universe was very very hot, we believe that all the forces may have been one. And that one underlying, seemingly magical force is what we are all now working to discover" (Boslough, 1985). We find evidence of the power and glory of consciousness in the myths of all peoples. South American shamans speak of how "The Dream not only drives the action, it also guides the action" (Perkins, 1994) the dream of ultimate conscious unity. The Aborigines of Australia spoke of the "Dreamtime" when the "spirit ancestors" dreamed the world into existence. Who knew they were so advanced? At least advanced in their

perceptions of meanings--without a way to actually get there, as white society from Europe has been able to construct. It was the future ancestors from far after the big bang that pulled us out of the void of infinite possibility—to put it in linear causal, or within-time terminology. This is the function of consciousness-to construct and bind universes. The cosmic glue that "breathes life", and meaning, into our equations. The soul of the machine universe. All we see and perceive is symbol at some level. The thing that breathes life into all of it is consciousness-which ultimately is one. The oneness gives life and meaning to everything like some great reader reading the book of life. We are the source of meaning when we read a book and likewise this great source of cosmic meaning is the source of the meaning of everything. This relationship exists because everything is a book to be read on a grand scale. The logos echo is the key to this meaning because it explains the repeating forms we seeincluding the reflection of the universe in our brains and behavior dynamics. The aborigines allow us to peer into the past—to learn about what motivated us early on in the development of humanity. In these other races we also see the pitfalls-even in their relatively advanced intellectual minds-which the miracle of the white European race's brains and motivations have been able to overcome with no small amount of work and struggle. The unity and power of suns driving the growth of trees rooted in the dark ground of the spherical Earth revolving around a sun are a powerful metaphor for the development of the phylogenetic tree of life out of the dark sphere, symmetry, and possibility of the early universe, and this contains information about the direction and patterning of all existence. We always increase our knowledge by noting the unity across diverse experiences, and these things on a microscopic (cellular origins of life) and a grand scale (big bang origin of the universe) revealed the greatest pattern and knowledge of all—the secrets of the universe and life.



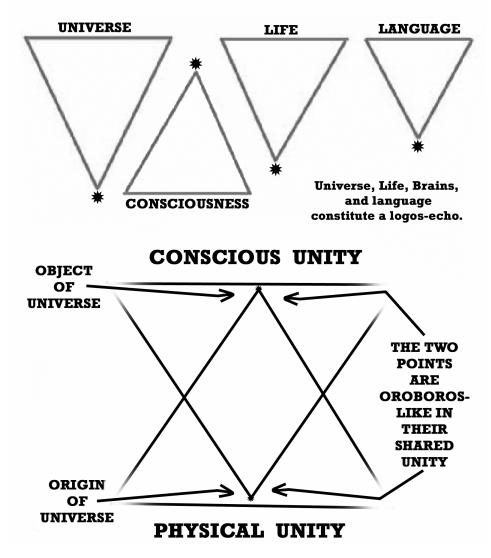
CHAPTER ILLUSTRATIONS:

The SPIRAL shape shows how the unity running through reality is seen in repeating, or meaningfully related parallel themes. As you encompass larger sets within the spiral, you get to a point where you see that it is actually all ONE LINE, and is truly a unity.

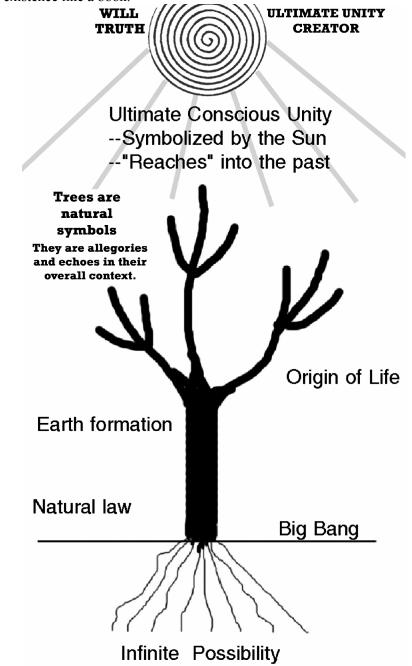


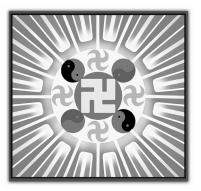
PYRAMIDS are a natural progression to a unity-towards the sky, or "future". Actually, there are two mirror-image (in form or meaning) pyramids describing reality-the unified origin of the physical universe out of infinite possibility, and at the other end the unified end of the development of life and coherence in that universe leading again to infinite possibility.

All originate in, and require, a single point of origin, or meaning. A single life also arises in this fashion, from 1 cell. Consciousness is the singular point of the future in meaning and it's inherent creativity. All life is driven by and originates these two processes mirrored in each other across space-time.



TREE of life, and reality. Trees are excellent symbols of the development of the universe and life—but you need to include their heliotropism, and dependence on the Sun to read their true meaning. The whole meaning of things is their true meaning. Life recapitulates the birth of the universe in this way, and a single life recapitulates the birth of life. We can "read the forms" of life and existence like a book.





This is the principle of the universe, The true Law that has never been revealed.

--Li Hongzhi

He who experiences the unity of life sees his own Self in all beings, and all beings in his own Self, and looks on everything with an impartial eye.

-- Bhagavad Gita



CHAPTER 6

Perceived Meaning as a "Lens" to see this Universal and Primary Force at Work:

Concrete Evidence that Consciousness Originates in An Unknown Factor Beyond Known Natural Laws

This chapter can be seen as a partial summary and restatement of a few of the points made in other chapters, along with much new data, but focuses and builds on the relevance of this new introspective methodology developed in relation to these ideas. Certain anomalies in scientific experiments which have been discounted or deemed just plain "weird" by the scientific community can be organized and understood with this new theory. There are the so-called "observer" effects or "spooky action at a distance" in physics, for example. One recent set of data collected by Dick Bierman (2002) at the University of Amsterdam is an intriguing case. He presented data at the 2002 Toward a Science of Consciousness conference in Tucson Arizona (where I also presented my theory) which showed "anomalous anticipatory behavior". Bierman (2002) states after finding this effect partially by going back and reanalyzing some data of another researcher, along with new data of his own:

"...subjects tended to show a larger arousal preceding emotional events than preceding neutral events, even when these events were properly randomized. ...This puzzling, apparently retrocausal, effect seems to suggest that future conscious experience might project backwards in time in the non-conscious realm. "

Though stunning, and predicted by this theory, That only provides round about evidence for this overall view of the universe. This new introspective

methodology presented here gets at the heart of meaning and the heart of why we do science in the first place. It directly shows this behind-the-scenes unity factor at work, and allows us to understand it. Consciousness can best be described as a "time machine" against the context of space-time. Consciousness serves to bring things together across time and space to create meaning. Our memories bring things from the past together with things about the present in order for us to perceive meaning for things extending into the future, or across the spaces of the past. The binding problem of consciousness studies arises because of our limited evolution-built world view of the past applied to brain tissue. We run into the exact same problem looking at the external world that we do looking at the microcosm model that is the brain. We can know this by our introspective analysis of experienced meaning, and the meaning in the patterns of the universe and life. Meaning is the instantaneous nexus of large volumes of continuous data into a point where the data can be organized and mixed and matched to create something new or pull out important universal information. We create or discover new things by connecting things in new ways, by bringing together possibilities and sifting through them. Consciousness is a place where new connections between things can be discerned, or created. Consciousness is the "God" of our brains (unity of meaning transcending space-time) seeking to become one with the "God" of the universe (also a unity of meaning beyond space-time) that we learn about in religions and mystical experiences of beauty and meaning. The mystical experience of beauty is the apprehension of a higher order to things beyond the data contained in the present experience--an order that requires the confluence of many lines of information to paint a picture of what is most motivationally significant to life. Great art has this quality, and so does great writing. There is more universal information beyond the data of the present experience. This is neatly symbolized in the process of science where many disparate events (experiments) are unified and tied together in powerful ways with systematic unifying theories. The word "tree" or "house" also contains the distilled information of the features we are talking about in all of our different conceptions of trees or houses. If we broaden our view of what consciousness is doing in the brain—seemingly connecting the states of our brain through time to bring forth unity and meaning in our knowledge so that we may be more creative and effective-we see that brains are an echo of the larger reality out there, and the entire universe takes on greater coherence. In fact, this is the only way that the internal and external information of human history, science, and experience can coherently be assembled into one-much as the theory of evolution unified vast amounts of biological data. Learning about consciousness in brains gives us information about how the universe is constructed itself-there is a fundamental distributed unity to things, as in the symmetry and salience of natural law-an atom of gold in one location is the same as an atom of gold in another location. They might actually be the same. No matter where you find the word "gold" it means the same thing in our language too. There is a distributed unity to the cells in our bodies that starts as

a single cell with a compliment of DNA, and eventually becomes the very differentiated and specialized cells of an adult human. Every one of these adult cells has the exact same DNA in the center of it. The whole is immanent in every cell.

Consciousness "puts together' the information in our brains because that has powerful survival and adaptive value. It has this survival and adaptive value precisely because it serves to bring about this eventual ultimate unity of the organism engaged in the process of unification right now with that ultimate source of all meaning that exists (beyond time) up ahead in the future that created us. This is the idea reflected in the "Omega Point" of Tielhard DeChardin's (1959) philosophy, Tipler's "Anthropic Cosmology" (Gribben and Rees, 1989), and Sheldrake's "Formative Causation" (1981) as stated earlier. Consciousness is like all of that, and more. The one case I can think of where there was a species on the earth which did not continue to unify, and was a threat to those organisms who had the potential to unify information in the future, was the dinosaurs. They do not exist any more for a good reason-this is a key point. In fact, all of evolution, and even the selection of our very specific natural laws out of infinite possibility right after the big bang, served this unity now arising in our brains and also threaded throughout the universe-as evidenced by the symmetry of natural law and the regularity of cosmic and biological forms, and the very intelligibility of the principles of the universe. If we think of the state of things before the big bang, there was ultimate unity and infinite possibility-more like everything as one than nothing. We pull into existence what is needed to construct the existence of consciousness and unity in the future universe. All things were theoretically possible at the time of the big bang. The one constraint seems to have been that we would eventually exist, that we would find unity again. We would increasingly find this unity in the leaking of infinite possibility in ordered form to sustain us back into the universe through the unity in our minds and their collection of unified knowledge distilled from this higher source of unity which is the coherence of the universe.

Our brains have become complex enough to allow us to predict things very well in the world, and to understand things by selecting out the unity in things happening out there reflected within our consciousness--the patterns that connect things through time and space. The unity that works for us, that allows us to survive, is greater and greater truth. We have acquired so much of the truths (unities, or laws and theories, underlying events) of the universe that we no longer need to even stay on land to survive. Using these accumulated principles, this life-giving truth, we can live in the vacuum of space, and men have walked on the moon. We have even split and fused atoms—producing the power source that lights the Sun. We see power in apprehending the truth of the universe we live in—power to overcome all other life forms on earth, and to send our species into the future by awareness and ability to overcome all obstacles and dangers to that future. The future is the purpose of all this activity—and that future demands unity in knowledge. Each stage in the

evolutionary march of life available before us in the world-from single cells to the complex structures of our own brains-had a definite direction originating in the nature of the universe. All life has moved towards truth, towards creative adaptation to overcome the dangerous niches of lesser truths. We are still struggling with this in the modern, civilized world. Very soon, things will forever need to change in our attitudes toward everything from genetics to religion. These evolutionary changes in our thought patterns have been building for a long time. They have been building through all time. A unifying government echoes this theme in politics but can become a false idol if we do not see the larger pattern from which this government idea itself arises. Government would be less necessary in a place where everyone followed these patterns-having truth-seeking people in a population, and the spirit of camaraderie or common destiny this produces, allows freedom and peace to successfully exist. We can construct a spacecraft and fly straight into the sun too, but that would be detrimental to our future because the form and function of the sun is a reflection of something else. Like all false idols, to not see the origin of this symbol, the real "sun" of unity behind it, is death. We cannot let any lesser truths gain power over our lives because we are the ones chosen to go all the way to truth. That is the great shining promise of the struggle of life on the horizon of the universe. That is where we will meet our natural maker, and there is nothing either supernatural or unnatural about it. Our brains were built by and for this purpose.

The forms of unity echo everywhere—that's why some people worshipped the sun. It is both functional, AND the structure and function of it contains important metaphorical and allegorical information about life and the role of consciousness in shaping the universe and arising in the universe. The universe naturally falls into patterns of metaphor and allegory which life naturally aspires to understand by its increasing reflection of the principles of the universe in the distilled unity of its knowledge. In this way, the hieroglyphics of ancient Egypt were more accurate representations of the language nature of the actual universe-because they used pictures, they adapted the perceived meaning of things in compact form to transmit information just as the universe does. It is important to realize that all things have two aspects—the material basis for the thing, and their information content which is dependent on its shape, purpose, and relationship to other things. Metaphor is a quality of the construction of the universe itself--which brains and their writing merely echo via the logos echo nested information quality of the universe (nested like those Russian dolls, or like the layers of an onion). Meanings echo in the universe revolving around this unity beyond time we meet in the future like our planets revolve around the sun. Like all planets revolve around suns everywhere-this is the scenario where life is born. Children grow up in a solar system, just as we might decorate a nursery ceiling with glow-in-the-dark solar systems (as I did with my children). When we peruse the religious writings of the past, we begin to see that religions everywhere find an uncanny universal coherence in these principles of a future unity directing life and events from "heaven" (read

beyond time and space, coming together with us progressively now and in the future). Our bodies-with their collection of cells-are the same way, an allegorical echo of the structure of the universe which echoes everywhere in the forms things take. Once again, cells all have the same DNA and work together to bring forth coherence—DNA is both functional AND symbolic of the way the universe is constructed. Unity distributed everywhere, starting from a point (one cell at conception). These patterns are unspeakably beautiful, like the greatest artworks of man echo universal themes. God is an artist--an artist of staggering complexity, patience, and transcendent beauty. The universe is pure poetry. Physicists might be somewhat flummoxed to realize that their work has facilitated the interpretation of poetry. So much for the arid rigor of scienceeven that is actually art appreciation. In similar fashion, we can see easily that all our other knowledge can now be similarly knitted into one great engine of truth. Life has taken a turn for the better. We have already reached a new age, and nothing will ever be the same after we realize this. Symbols may not be what they represent exactly. Symbols are imperfect taken separately-that is the nature of symbols. This shows the importance of unity to life in a way that is functional and would not be found until we were ready to see it. It is the only conceivable way that I can see that this could be done, that we as symbol manipulators might arise. These are God's hieroglyphics. God is not only omniscient, but he is the master of beauty. The unity of meaning in these things highlights this beauty.

Since everything in the universe seems to have happened perfectly to have brought us to this point, where we can be conscious of all these things right back to the beginning of the universe, it is true to say that consciousness (where it all "comes together" again) was the object of the outcome of all of these events--a sort of getting back to the original unity and possibility that existed before the big bang, using our minds. The only constraint in this process being that we need to continue to exist (thus no fundamental, incoherent, changes in natural laws) we need stability like all children do. It is interesting to make the analogy that the love of a parent is like the stability and environment of natural law. Now what would the physicists say about that? We are becoming familiar with what is outside the universe and existed before and beyond the universe of our normal senses with science and information. Space-time is the playpen for the birth of this unity into a coherence that also allows it to exist. Just as a person's experiences, a person's truths, can be put into words but cannot be understood until the listeners have developed mentally enough to understand, as we have developed to understand the meaning of the universe. The symbols in words lie there dead until enough experience in a reader accumulates to bring them back to life-to experience as the one who wrote experienced. The universe has been preparing for this for billions of years, and could not exist or be perceived if this process was not taking place-it is intrinsic to existence. God is born into this universe and people become prime movers-God's eyes, hands, purposes, and minds. Another quality of unity we find in the information in the universe is that it is timeless, maybe the only truly timeless thing about

the universe since all else is change. To the extent that we align ourselves with this unity, we are also immortal and increasingly creative. It is something in the future we have been aspiring to—and lends this uncanny coherence to things in nature and past civilizations. Consciousness may have only seen its first glimmerings in relatively recent times—giving rise to the disparity between religious and geological or astronomical estimates of the age of the universe. One looks from one end of creation in the unity "consciousness", the other looks from the other end from the time of the big bang. This explains the form of the oroboros—the snake with its tail in its mouth, since it seems like consciousness bootstrapped itself into existence in us from beyond time—if you remove the limited perspective that space-time imparts.

Consciousness is a light in a cave that guides us to our destiny. The unity behind the universe that we reach in our future, as life forms, draws all life out of the void. It is the primary natural law. Consciousness is the source of meaning in us, and the connecting principle for all events in the universe. We can see this because of the shared features between consciousness and the patterns of the universe. Moreover, it is relevant to do this since those shared patterns have a quality of meaningful information which is repeated and "tells us" by the echo of forms that this is the case. Consciousness is why science works at all-the fact that we can form theories at all is a quality of the universe itself. Meaning is a basic principle of the construction of the universe and life. The echoed metaphors that result from space-time distribution of unity allow our brains to operate like the principles of the universe because they are echoes of the universe itself-much as language is an echo of what is going on in our own more complex brains. Consciousness is a gift-the connecting principle being born in us that connects all these things and allows us to see beauty and the meaning in the allegories and metaphors of nature. The consciousness being born in man spreads out from the future into the past and provides a new way to see events and things in our past-makes new meaning everywhere. Just as a cryptic code can be unlocked and then all the communication of the past can be understood, or new knowledge can allow the reinterpretation of imperfect past conceptualizations in various fields of science, archaeology, or history. Really these fields are all the same thingonly on different levels. From the religions of the world and the artifacts of ancient civilizations, to the shapes of trees, animals, antlers, peacock feathers, human cellular makeup, Christmas trees, and the solar system itself, the unity that gave rise to and drives the universe is reflected everywhere.

Meaning like this comes from the future into the past—the Egyptians buried their kings with their belongings for the "afterlife" in the future... and their pyramids reflect this cognitive unification from the diverse theories of the world contained in the brains (or "theories", to put it more succinctly) of the animal kingdom up to the divine and powerfully unified knowledge of man. We can see these things at work in the unused DNA of the prokaryotes that is silent, but which is used later in eukaryotic cells further along the evolutionary ladder (Bult, 1996). Something silent made useful and new by the advance of life that

was already there before it was needed. There is evidence that flightless feathered descendants of dinosaurs existed BEFORE birds came and developed the ability to fly--which would make feathers so important to their survival. This is called "exaptation", and seems to be analogous here to the selection out of a field of possibilities the specific natural laws as we see them today. A biological field of possibilities like that which existed at the time of the big bang that the anthropic cosmological patterns and constants of natural law arose out of. The future makes these more coherent. Peoples' personalities form the same way—we say a baby has potential, but that you cannot teach an "old dog" new tricks. We all know people who try to settle on a way of coping with life that seems to work at an earlier time, but later can cause all kinds of trouble if they persist as "mental baggage". I guess the moral here is to have more faith, and to trust ambiguity (and others) more. That which would bring about life happens before the life actually arises in the universe as well as in organisms. This echo of general form in these patterns across totally (scientifically) different "media" is the logos echo. In "formative causation" fashion, the future makes "attractors" upon which the choices of life and chance flow to ensure that life continues into the future. That is the only possible way to make sense of the major lines of data in the world in combination with the phenomena of consciousness. This theory explains what we mean when we say someone left school or left a job "to follow their heart". That's why freedom is important-to allow the flow of information, division of labor, and the exaptation of things we currently see no need for. We are already organized and coordinated by the government of God over a much more vast expanse of time. The words "In God we Trust" on our money reflects these deeper things, and is evidence of our true heroic nature in trading immediate comfort or safety for higher patterns and purposes which extend far beyond our lifetime. A woman's parental or maternal interpretations on things serves to bring safety to children in an immediate sense who may not be ready to make these kinds of choices. This is where another classical conflict of men and women arises--where men realize the creative importance of disregarding danger and death to the long term future in scrutinizing and following these larger patterns, but women tend to make a concerted effort to ensure immediate safety, stability and resources for children as primary motives while learning and teaching these larger patterns. These tendencies overlap and are nothing that cannot be surmounted by mutual understanding of the larger patterns behind those emotions and worldviews. The future sees the need for the free function of society, and directs it by increased motivational significance of things (religious symbols for example) which later find their true use and meaning. Communist dictates do not include these things, and automatically destroy a civilization eventually as the motivation goes out--the spirit goes out--of the people. The ideas in this book have fundamental relevance to ideas of information flow, commerce, freedom, and morality. We see this today in the persecution of the Falun Gong spiritual movement in Communist China, for example, whose symbol is the age-old swastika symbolizing the "true law" of the universe. The ideas within that

spiritual practice are summed up by this statement by it's founder, Li Hongzhi in 1995:

The doctrines of the Great Law of Falun Dafa can give guidance to anyone in their cultivation including those who have religious beliefs. This is the principle of the universe, the true law that has never been revealed. In the past humans were not allowed to know the Principle of the universe (Buddha Law); it transcends all the sciences and moral principles of ordinary human society from ancient times to the present. What has been taught in religions and what people have experienced are only superficialities and phenomena, while its extensive and profound inner meaning can only present itself to and be felt and understood by the cultivators who are at different levels of their true cultivation, and they can really see what the Law is.

This is a great reflection on the "world stage" of the new age coming and the final battle of true good and evil to come—an abstract battle of ideas (it is always hoped) more than anything else.

One other contingency to survival also existed—the patterns and contingencies which would elucidate and teach subsequent generations of organisms also had to exist in other life forms and in the universe. Information for our existence is reflected in the play (often deadly) of these beautiful creatures. There rightly should be peace on Earth if we can find our fearless natures within the armor of God. All life, all existence, is actually one body if you look from completely beyond time, and its head always exists in the future like the figurehead of a ship, the dragon shape of a Viking ship, the Chinese dragons in parades with all the people inside, kings as figure heads of nations, etc.—beyond the space-time of the present. That is why we cannot find an ultimate theory of everything in physics, even though we thought we were close several times in the past with classical Newtonian physics, the "ether", etc.—it is in the future, and in our minds unity and consciousness.

We build our future in the present by seeking knowledge and truth, and we battle the shadow of the future paths of our demise found in evil (lies, regressive forces) in the present where the future takes root. All the world is a stage in this play of death or following the path of truth, and it is telling us about the future by what we see taking shape now. Sunlight kills "vampires"-the living dead (future) that have gone off the path, that literally steal away our light and life as judgments and challenges, like any other environmental challenge an organism might face—which actually serves to drive us forward if we react properly. Our "enemies" help us to grow because only truth can bind the divisiveness and blindness caused by untruth and partial truth—our greatest present danger. Any general knows that a common enemy brings even diverse factions together. Programs and patterns that have worked in the past are

growing obsolete, and so we see our demise played out in the proliferation of nuclear weapons, and the disillusionment of people with religions, the spread of communism, political correctness, lack of ability to think, etc. We are being torn apart and smashed by wrong information. We must transcend our adversarial programs. Power and sustenance goes to those people and civilizations that love truth. Those people who commerce with truth get their motivation and sustenance from the truthful signs of growth toward the future and truth in a population. Pirates (with skull and crossbones flags) intercepted the paths of gold accumulating in unified places under kings for example-gold is a symbol of truth and the sun at the same time, it is eternal (does not fade or corrode) and easy to shape into useful things, it is weighty. Diamonds are carbon shaped by intense temperatures and pressures into highly ordered crystals that go from black to clear or translucent and sparkling with rainbow fire-a metaphor for the journey of carbon-based life forms on earth. Diamonds can then shape all other substances naturally found on earth by their extreme hardness. The destruction, and sacrifice, of past life forms in the age of dinosaurs provides the fossil fuels upon which we have built our cities which now reach toward the sky. We find gold in veins underground from the past and shape it into symbols of the future (just like we do with knowledge using science—we refine it, and mine it, and pan for it through the sands and streams of time). Truth eliminates the dangers to our survival that take shape in the present. These are echoes of the future that the current actions will bring-reaching into the past to exist in the present. All learning is like this—we are living in a universe in which the "signs of things to come" actually existotherwise there would be no point in learning and trying to predict things. Simply echo up this pattern and you will unlock the secrets of the world stage-the ultimate "mirror ball" of the creator. On a grand scale, destruction takes an actual shape (and sometimes living forms) in the present. For example, dinosaurs existed at the same time as our small, tree-dwelling ancestors. Dinosaurs were a serious threat to them, to their future. That was an obvious example from our past. Today, in the intellectual and abstract environment, we have threats that are not so easily seen. Once we realize this, we can see destruction living, breathing, and walking amongst us in the confusing, manipulative, divisive, or degenerative forces and people in society. Higher vision means that any true predators would have higher camouflage automatically. We have intellectual predators. All wars, all conflicts, all evil fears the day that sunlight is poured into their dark places because these destructive patterns will be exposed by higher truth. This is that day, and this is the definition of what is meant religiously by "the light of the world"-the meaning behind all things, the unity which fires up the engines of God and clears the deadfall from the trail to truth. This is the only way to assure our survival into the future in the modern information environment where lies or lesser truths become a threat to our existence, just as animals in the wild are dangerous to us even though they may reflect some slice or aspect of truth very well. Animals reflect truths about the world, but we cannot let their reflection

of truth lull us into thinking we can lay with them or live with them. This is especially critical when our own minds are developing and we do not have enough information for judgment—as when a child might say something like "look at the pretty doggie" and toddle over toward a hungry mountain lion hiding in the bushes. They will do what they were meant to do-kill whatever strays off the path. We do not build spaceships and fly them into the sun just because the sun looks like what drives us deep down. The natural world is a harsh teacher-reflected in the patterns of television shows like "The Weakest Link". The prize is great as well-as reflected in shows like "Who Wants to be a Millionaire" or "Wheel of Fortune" where there is a great prize for figuring out a puzzle or answering a question-using knowledge. Obviously, there were not game shows back in the panorama of our evolutionary heritage. These things, and all motivationally or commercially relevant motivations and pursuits echo other patterns, and serve as allegories for life processes too. Death is the removal of those who cannot or do not learn properly in nature. Death also must remove those things which learn too well the wrong things and therefore hold back progress. Mother nature is the harshest teacher by far because it has to be-it is built into the processes of nature itself since imperfection does not unify and reflect truth. Chaos cannot continue, just as all exceptions to natural law were eliminated at the beginning. These deaths are the real animal sacrifices to "God" and the overarching unified perfection we are moving toward which were used in various religions to make this point that they saw darkly. Once we see the truth, or reach a point where we have infinite possibility to overcome the obstacles to life in our knowledge, there is no longer a need for death or sacrifice—at least not in how we have previously known it. Those two things naturally go together as natural laws of the universe as well. We will need to take over the monitoring and improvement of our own genetics. That is the only way we can ever eliminate death and still continue into the future. We must have full truth at this time of genome projects and research on the foreshortening of the telomeres in DNA which promise so much. Without full knowledge, we will destroy ourselves before we bridge the gaps.

Of course we should not be fooled by the symbols (like the actual metal gold) of these things—they only reflect something else that could not otherwise be represented in this material place. They indicate something else—we must not mistake the map for the territory, although the map is absolutely necessary. Truth is written over and over all through reality in different forms just as it is written in different religions. One of the features of the Koran in Islam is the rhythmic quality to the verse. It is apparently to be read and experienced according to some practitioners—which serves to prime people to perceive the rhythm of the logos echo (in this interpretation) threaded throughout the universe beyond the specific content of the words. I truly never set out to be "religious" in this, I just wanted to understand consciousness in light of the data from brain science. However, when the rhythmic waves of meaning came over me early on, I just surfed them into the beach... and found these things waiting

for me, this coherence, later. Everything began to make sense only from this perspective. I started out as a psychologist, then a brain scientist, then a consciousness researcher—not officially a theologian, an archaeologist, a linguist, a physicist, or a biologist—although I read widely in all these areas. Earlier, I nearly flunked out of high school partly because I stayed home to read physics books, psychology books, and once I even stayed home a whole week to read "The Lord of the Rings". The point is, these activities only served to be coherent in retrospect-only because of the place I have reached now in the development of my thinking. Before I had reached that point, they could only be interpreted as "problematic" according to accepted social practice. That's how I have been able to bring together so many disparate elements into this theory-this is exactly what the universe, life, and humanity itself has been doing. It has been developing to a point where we could re-interpret the data that served an earlier approximate or incomplete purpose just like the neocortex re-interprets the functions and unity (or distributed physical theories) within lower brain processes and via which we make theories which encompass these patterns. We learn from the patterns of animals easily because of this too-we understand them, even if they do not understand themselves. The universe has been organizing and making life to read what it is saying in this ultimate way for billions of years. There is a rationality to our emotions, a coherence which can be read. We want to have children that look like us, or reflect us, and in a way this reflects what the universe has been doing all this time by constructing life which reflects the unity which made it so well. So lets look at the evidence again all together: In the 4 previous chapters, I have presented: (1) cellular candidates for how this unity might be modeled in brains. In this view, glial cells operating beyond the space-time reflect this unifying force in nature. Space-time is therefore only inherent in the neurons; (2) Why and how we can get beyond the naturally limited world view we are presented with by the exigencies of our biology, and how we can transcend the pitfalls of that knowledge; (3) a fuller discussion of the logos echo of unity in the universe, which gave rise to the meaningful forms and metaphors-including our brains, the allegory of our lives, and the symbolic language we use. Language uses the apparatus of the brain originally tuned to see or follow the logos echo patterns and therefore requires consciousness to use or understand; (4) and more tangible evidence from the introspective investigation of the complex and rare events of consciousness to show the everyday coordinating power of conscious intellect and the uncanny, unseen coordination of reality that allows a civilization. Ants may not see the patterns that their behaviors fall into, but these patterns (some extending over thousands of miles) are very important to their future.

These ideas greatly increase the information available in the universe. These ideas answer many, many outstanding questions people have had for a long time, such as why are we here, and where are we going? Where have we come from, and what is the objective basis for morality? Why are there religions and are they just fantasy? What is God? What is evil? Why are there civilizations

(to bring together people and knowledge to build our future survival)? Why is it perfectly natural for people to build skyscrapers in civilizations? Because they are building toward the sky "future" the realm of the sun "unity that gives life" for practical as well as deep emotional/psychological reasons. These are similar in form to those motives we shop for cars with. We have both emotional and practical reasons for our choice of cars. In the natural world, there are meaningful as well as practical constraints on the organization of nature. Our language has meaning and grammar. In these parallels, we see that we are becoming closer to reflecting that which made the universe. Why do people climb mountains? Sir Edmund Hillary was just in a car commercial shown this week as I was revising this part (11/9/02) to appeal to those emotions which deeply motivate us because he scaled a high mountain peak. How can consciousness be so salient in our experience yet so elusive to our brain science? (It's time-shifted). Why did Democritus talk about atoms thousands of years before we were actually at a point where we could prove their existence with science? Why did Leonardo Da Vinci draw pictures of helicopters, tanks, and flying machines well before they were possible? How do we get ideas "out of the blue"? Why do we like "challenges"? Why do we value truth? What are dreams, what do they tell us? Why do we call the ideas of "dreamers", "pie in the sky"? Why do people build walls, and make war with each other? Why are things beautiful? Why do new theories re-interpret past data, and keep us moving forward? Why do symbols have meaning and attraction for us? Why were there pyramids on two different continents? What does the shape of a Buddhist stupa really mean? What is enlightenment? Why do cathedrals or churches have spires that reach for the sky, and why does that give us a religious feeling? Why did Michelangelo paint so beautifully on the ceiling of the Sistine chapel so that you had to look up to see it? What truly is a theory of everything? Why did the dinosaurs really become extinct?---not the mechanics of it... What does it all mean? Why is a theory of everything elusive to physicists? What is heaven, and what do religious people mean by terms like "he ascended to heaven", or, "the kingdom of God on Earth" or "the source of all learning is knowledge of God" or "self-realization"? Why do animals assume the shapes and forms they do besides the obvious utilitarian reasons (why are they simply beautiful, but also so ruthless with each other)? Why did ancient peoples sometimes use drugs to see their "gods"? Why is coffee (or tea) dark, bitter, and motivating/anxiety producing? Why is the shape of a tree such a haunting metaphor for so many developmental/evolutionary processes (knowledge, life, phylogeny, family)? What is the real nature and real danger of "memes" (Blackmore, 2000) to humanity (confusing the truth-promoting stasis in theories which should be mobile (Peterson, 1999) causing lies and destruction to proliferate)? Nietzsche said "God is dead", but also he said "The voice of beauty speaks softly, it steals into only the most awakened souls" This comment on beauty means exactly the opposite in this theoretical context. Nietzsche eventually became mentally ill-which should tell us a lot about the nature of mental illness and the danger of memes. Memes like the ones we find

in religions which become twisted into the most heinous rationalizations for destructive pursuits at times. When religions become detached from the path to truth, after they have served their purpose, they become weapons of destruction-destroying exactly those people who seek to move us closer to god by doing something new and transcending. Partial truths are the most dangerous, because of their motivational power and relevance. They are powerful handles which can control—false idols serving selfish desire and fear. They are rationalizations for destruction, and false destinations. They are actually only a process. They are a teaching chrysalis. The language, laws, and rituals we use in religions leaves no room for the reality of god to increase, and seeks to box God in. Over the years as these things become corrupt and misinterpreted, they become engines of destruction for misguided prospectors, baited with gold—an environmental danger we can only overcome with transcendence and greater truth. A greater whole indicates the false parts, the destructive aspects, just as satellite photography is much more accurate than the maps of the early sailors on the oceans. These early maps are sometimes ridiculously out of proportion and twisted. There are additional, larger, questions this theory answers in specific detail which religions of the past could only pave over by pointing to the fact that these things were the will of some "creator"--just as the ideas of phlogiston or spontaneous generation had their day. It is time to build on top of these things and fill in the gaps to reach a new level. What gives rise to life when the probabilities are so stacked against it? What sets the natural laws and constants of nature at their present values? This is the one unified way to conceptualize the otherwise detached and overwhelming information that now exists in our information age that will carry us into the future and simplify all teaching. Truth is the greatest "mnemonic device". "What breathes fire into the equations"-to paraphrase Stephen Hawking's (Boslough, 1985) famous question—is the instantaneous (beyond time) unity underlying the universe and experienced in consciousness. This unity is the source of human creativity, poetry, science, religion, and life. This theory answers all of these questions with more coherence and meaning than any other theory that even comes close. This is the theory we have all been looking for through all time since the first cellular life, and even since the very beginning of time.

Physicists may find this "mirror universe" of increasing unity (mirroring the big bang allegorically) in their experiments eventually, or a structure (like the spiral) connecting things. There MUST be a way that information can flow backward and/or is related instantaneously in the universe as you can see from all of the evidence here. The end of the search for truth in life is to become completely co-existent with same creator who was there at the time of the big bang beyond space-time. I have also invented a new technique of apprehending spontaneous lines of experienced meaning which shows that brains echo this pattern of unity underlying the events of the universe by being centers around which meaning organizes in our daily experiences—beyond space-time constraints (in direct proportion to learning and understanding). Civilizations

organize practically, meaningfully, and "spiritually" around our highest intellects in proportion to their love of truth for good reasons that are actually natural law. These are the reflection of the organizing "will" of the universe. We normally do not recognize these patterns, and they are not available to the linear-causal experimental method. Social patterns, and patterns of science, corral our thoughts and perceptions to other things of more pressing, narrow, and immediate concern-just as the universe developed silently in darkness for so many years before consciousness arose within it, or a child can grow up to become enlightened. Our brains echo this pattern of unity organizing seeming chance events of the universe in our otherwise mundane daily lives if we let our minds free to see them. These patterns are more like literary analysis, or art appreciation. Themes are important. Discerning these patterns is exactly like seeing the overall pattern of a Robert Silver's (1997) photomosaic. Our attention is guided by important things—which then become more salient. We see patterns of life and emphasize them. If we get the patterns right, we increase our knowledge and our civilization's ability to survive. By following patterns of knowledge, truth, and justice our power to organize, echo the "will" of logos, and survive grows automatically because the future demands it. This is the delicate cathedral of intellect and civilization toward God. Consciousness researchers are the "holy men" of a new age, and these patterns are how we can directly see the "thoughts of God" as Einstein, and Stephen Hawking, so famously said-both God's past thoughts, and those in motion right now working to organize the future. Now on to more evidence I have collected which shows meaning as reflection of the organizing principle of unity out of available possibilities that is behind reality and consciousness:

21) This one just happened about a half hour ago (04/04/02 approx, 1:50)PM). I had been working on this poster (this chapter was originally presented as a poster at "Toward a Science of Consciousness 2001" in Skovde, Sweden), and I played the two "Toy Story" movies for my kids while I was working yesterday. I noticed that the (real) dog's name in that movie was "Buster", and that it was a Dachshund. We had a Dachshund named "Buster" (he came with the name) for about 12-13 years. As I was watching, woody played a trick with him where he would sit up on his hind legs and then Woody would say "pow", and he would fall over and play dead. That was one of the best tricks we taught our dog while growing up which we were most proud of him doing. Then today, as I was getting another movie ready for the kids, the TV switched to the PAX channel as I was turning on the VCR. There was a guy in bed, and his Dachsund was jumping up on the bed to wake him up—alerting him to some noise in the house or something. Both events were while I was getting a movie ready, or just starting one, for the kids. This type of everyday event, or sets of events happen often-and are always related to the contents of my consciousness each time, which knits together the echo of unity in these things.

- 22) I had been considering whale analogies, and had just read over where I had written about this. I had also been considering elephants—what I had written and the blind men and the elephant analogy for religions, etc. I had also been considering the extinction of the dinosaurs (as mentioned in this paper). After that, I found a book in a stack I had brought home from my parents house some months before (The Golden Treasury of Knowledge Vol. 2) and I flipped through it and found a page comparing Blue whales with elephants, and referring to the extinction of dinosaurs—even saying the extinction was because they were "slow". The next day, I went online right after I woke up and saw 3 articles listed RIGHT IN A ROW that dealt with the same subjects on the "news" section of my homepage (see photos of book, and screen capture of homepage). There was an article about Blue whales, right after that there was an article about elephants, and right after that there was an article that said "Was T. Rex really a slowpoke?". All three articles were right in a row out of many possible news headlines. It is important to realize that information over and above what is actually said by the articles is contained in their configuration and timingwhich science traditionally says are totally unrelated and random. Consciousness seems necessary to perceive the meaning in these things. My theory says this is the destiny and impetus of life-a oneness in truth that becomes the creator itself manifested in the material realm as part of natural law.
- 23) Consciousness seems to apprehend a spontaneous, constantly changing order to things related to itself. If we pay attention to meaning instead of causality-like art appreciation instead of studying the techniques and processes by which we create the basis for meaning, the message instead of the media. Thoughts and events naturally come together in this way because unified thoughts or consciousness formed the universe itself-they selected combinations of unified coherence out of infinite possibility. Here is another example of everyday coherence: I had written in my book about how our views tend to be shaped by our purposes and survival. I wrote that we see "refrigerators, etc" and all these things having to do with our mundane survival purposes. I paused for a second when I wrote that refrigerator thing-I briefly considered that people put pictures on them, important notes, etc. (meaningful things on an otherwise practical appliance). I thought it was otherwise ironic to write about refrigerators when dealing with ultimate theories. Then I was going to work the next night (2/27/02) and saw this message on the light up sign out in front of a church that I always read while going by: "God has a picture of you on his refrigerator". This sort of synchrony in reality echoes the 40hz synchrony in neural groups we see during consciousness in the brain. A synchrony that exists, but is

only connected in each case by consciousness connecting these things across space-time.

- 24) Driving down the road is a good time to see this meaning/echo and spontaneous order. On the way back from the Supercross motorcycle races in Atlanta, I had been thinking about when I went to graduate school in Atlanta and the trouble I ran into--partly because of these ideas, and the unconventional nature of what was "in my heart" which led me to write an 80-page review paper on glial cells and memory for my comprehensive exam paper there. About that time (12:35PM by Altoona Lake) I drove up behind a white Trans Am (firebird-they actually used to have a big phoenix-like bird on the hood) with a Florida license plate. It was weird because it had a "wide load/truck escort" sign on it and lights. I was thinking about the metaphor/meaning of this to me, and the whole Atlanta-Emory educational fiasco I experienced in Graduate school (I stopped there that morning to visit my old lab and take pictures), when I happened to look up just then into the other lanes across the median, and saw a truck pass with the words "Fenix Rising" on the side and a bird painted on the side in white and red. I kept driving, and the very next truck I came up on ahead of me had a sticker or some small painted words that said "Phoenix Transport" on the back bar of the truck on my side facing me as I passed. I mention this one because it is three events in a row that serve to emphasize each other and the meaning created by their coming together in my consciousness on the heels of the particular thoughts I was having at the time. Anyone can see the low probability of all these moving things coming together at just that time.
- 25) I read an Air Force ad in a magazine something about "blue"-going into "the blue" or something while watching my two kids play Midtown Madness (car racing game) on the computer. I walked into the other room, and saw "Nickventures" on TV. That's where a guy in a blue bus with a United States map on it travels around the country. He was visiting two kids who raced small cars in Phoenix Arizona, and they all went to a radio control car race with the kids. I was just talking about radio control stuff with a guy (David) at work the last two nights before that because he was making a radio-control model for his kids, and I found a radio control modelers site online in Jefferson City Mo.. There was a link to where I could get a new wing (Goldberg Models) for a radio controlled plane I had that crashed a while back while I was in grad school. I also found a site called "Blue Max RC" while I was doing this and searching links. I had been thinking about doing radio control stuff with my kids. All of these complex coordinated relationships happened together over a relatively short period, joined only by the meaning threaded together in my consciousness combined

with or because of their relatively low probability of occurring at the same time. You are not as likely to throw 5 consecutive heads in a coin toss as you are to throw 1. This seems to be the conscious experiential counterpart to the forces affecting probabilities which coordinated and shaped the universe.

26) As you learn more and more about the world and the universe we live in, you see more and more of these events happening-and not just personally in things to do with people. Things in nature and events in the universe itself take on a certain coherence and symbolic value at some point in building your consciousness with knowledge-an enlightenment. Once you know how to look for this stuff, and increase your general working knowledge, these events happen constantly. You cannot see them unless you allow your attention to wander to other things than those dictated by social conventions. Soon you realize that the very shapes of things have meaning which is sent back into time by the future of their unification taking shape beyond space and time. The nature and purpose of the universe is written and modeled all through it. The meaning in the "mind" of this universal unity echoes everywhere. By learning and valuing truth, we come to see these things-align our thoughts with the "thoughts of God", and see the workings of this "heaven" on Earth, and also we see the nature of destruction. That is the catch-that requires no small amount of courage to face it, either. It is a blessing too—since we can see what we need to overcome in order to move into the future to have "heaven on earth", or "nirvana", etc. in the terminology of various religions. Negative interactions between people take on the aura of the death of life itself in the seeds of these smaller acts, and it is hard to retain your composure in the face of that. Negative thoughts can infect your mind and its patterns of reactions and choices--creating a cycle of selfdestruction (like "Karma"). There are many traps on the way to truth, many mortal dangers to the progression of life. Thank God there is still a lot of good (truth) in the world, and hope. For example, the sky is blue and the sun is also up in the sky (the show "Blues Clues" on TV about a dog that can't speak but we can follow clues (along with "Steve") to find out what it is "saying"... and the child's game of "hopscotch" with "sky blue" may be familiar manifestations of this for children). If we analyze the metaphors built into the human language (try any of George Lakoff's books on the topic to get started—they are excellent introductions to thinking about metaphor) we see that "up ahead", and "sky", etc. are used as metaphors for the future. The sun is a unity, sits in the sky, brought together by gravity until it "lights up"travels across the sky, and is responsible for the weather and energy that drives and sustains life on earth. The more we learn and apply to these metaphors, the more beautiful and meaningful they become.

Plants grow toward the sun (heliotropism) and have their roots in the dark sphere of the Earth. It is functional, and that function serves to highlight it's allegorical message available from the logos echo quality of the universe itself. The motion and dynamics are part of the message reflecting the underlying nature of reality across time. The universe is a language built upon the grammar of the physics that were necessary to bring forth life and consciousness in us. The universe speaks to us, and it is telling us it is time to read the message now. From the nature of events in our own consciousness, we can plainly see that the universe has a lot in common with the way humans think and form meaning—it has been like we were growing and learning only to get to a point where we could see and talk to the unity that made the universe itselfbecome one with it in a very literal sense. We learn and grow until our minds work just like the universe works. Our consciousness increases until our awareness begins to have a visible organizing power over events, or is aligned gracefully with the workings and information in both the universe and on Earth. All knowledge really is ultimately related, just as everything has its origin in the singularity of the big bang, and that is what brings something out of nothing.

27) As one especially meaningful instance of historical evidence, the Pharaoh Akhenaton in ancient Egypt had a different view on their religion back then-he used the symbol of a sun disk combined with many hands that "shone down" from the sky on various scenes, and on him and his wife. That was not so much a "rationalization of his leadership" as a way of showing how the world actually works, how he saw it, to show his experience and that he had become a part of the life force itself that drives the universe. It was the only period of real "monotheism" in the ancient Egyptian religion. It didn't catch on verv well, and a lot of his work was actually destroyed by the priests after he left because he changed things so much with his new idea. They were used to the old ways. Not everyone, or even a majority, were able to accelerate their development with the knowledge of that civilization to get to that point of seeing the truth in that. This happened partially for the changing genetic or racial makeup of the population. Early on there were laws against interbreeding under punishment of death-like the caste systems in India. People only concerned about immediate resources can enter a civilization because of the resources, and then breed and greatly outnumber the ruling classes or pioneers of that civilization. When people get together, nature takes its course. Especially when people cannot see their differences because the larger patterns are so hard to see and span such great amounts of time. This can change the genetic and informational trajectory of an entire civilization-eventually snuffing out the spark which gave rise to it and sustained it. They had no genetic knowledge back then with which to

understand these things and these dynamic patterns. They did not understand themselves. It is a blessing that we do now-part of the irrefutable evidence that we were meant to be the ones to move forward and be successful in reaching our goals. By merely increasing the numbers of those who can see clearly and read these things, we will assure that we maintain our vision and trajectory to the future. One could say that all our knowledge and technology, although it has myriad other benefits, was accumulated for this one overriding reason of primary importance. To know ourselves in order to make the right choices and not be tricked by animal desire into a cycle, an attractor, and karmic trajectory of death. The one great danger is to become enslaved by wrong information ("Politically Correct" information) from political forces that are not our true leaders, or by those who only attend to immediate needs and comforts. We need vision, true heroism, and truth in our souls just as our electronics and computers need electricity. That is what powers a civilization. To the theories presented here, all of Egypt must have revolved around that short time, the pinnacle of truth for them that was unsustainable. The genetics necessary for widespread vision and knowledge were not available, and neither was the detailed information necessary to convince the people. In Christianity, Jesus is asked about heaven and says he cannot tell the people about heaven because he told them about Earthly things and they didn't believe. Social pressure and belief is often used successfully in place of understanding in order to create a trajectory (or an "attractor" in the language of the mathematics of chaos theory) toward higher truth and higher civilization to maintain higher patterns if the right people make those patterns. The "divine right of kings" has its origin in truth-in that the most advanced in knowledge can steer civilizations in the direction of greater truth and life. They may actually be impart spiritual strength and motivational forces by their personal efforts too. Increasing the probability of the greatness of the future grabs hold of and empowers all our hearts. The future of the patterns they build gives them this power. That future arises from the capabilities their genes give them. In practice, the positions of leadership were not always filled with "kings" in this sense. People with only the learned symbols and levers of truth, or with ulterior motives, have given these things a bad name in many cases over the centuries. The miss-use of power under the auspices of truth has made too many turn away from the path to light and life. It even makes people turn away from religion—the ultimate throwing out of the baby with the bath water. King Ludwig of Bavaria is an example of one who had vision but was deposed by his ministers who did not share that vision. His vision certainly was not perfect or complete, but there were definitely signs it was nearing that point in the symbols of his reign and in the interests he had in both metaphorical things and advanced

technologies. If he had not died under suspicious circumstances, perhaps both world wars would not have occurred. It is interesting to speculate on this. Misunderstanding about what is important in life has caused horrible wars and atrocities throughout human cultures. These are diseases of the soul, genetic blindness and destruction which we can eliminate forever. We can develop genetic therapies and programs made available to all peoples to make the leap across this mounting danger. All of these blind negative forces in history have been the dark future of our own deaths taking root in the present. Immanent death playing out on the world stage. The main problem is that the products of intellect and vision are widely available to those who are not ready, who are not capable of making the choices and sustaining influences necessary for civilization. They learn these things only seeing the practical and immediate uses for survival. We shut down the evolutionary contingencies of death and rising or falling on your own merits in these people. We remove what chance they had to continue moving forward by giving them the results of our already having moved forward. We destroy both our futures by letting them come to our civilization and to do this. The solution is to take over the processes of nature we have shut down and removed by using our own genetic techniques and therapies to move us all forward. Seeing the problem is the first step to curing the ills and conflicts of the entire world. They are all due to blindness. Blindness always gets paved over with fear, and that is the origin of all violence toward greater things and a greater future of true peace in complete vision. It is time we unleashed the true life force to build our future again. It's a time of miracles again. The American Heritage dictionary defines miracle as "an event that appears unexplainable by the laws of nature, and so is held to be supernatural in origin or an act of God"--so our consciousness is, literally, a miracle. But it is not a supernatural miracle, it is a natural miracle. It only appeared inexplicable. We must follow the call of our destiny written in time and the patterns of civilizations.

28) World events happen, and events in movies also happen, that seems to be uncannily aligned with my thinking—as the time-machine themed movies out now seem to have something to do with these things in this paper. There is some invisible pattern connecting them which is arising at this time. Additionally, I was thinking about a Moby Dick book (Melville) I had given my brother (he is a fisherman), the metaphorical nature of that, and how I told him he is a better fisherman than that, when the next day I saw an ad for a new "true story" version TV miniseries on the Moby Dick story. The Toyota "Echo" car came out after I had come up with the idea of the "logos echo", and was thinking about such echoes as a basis for reality. I found out about that car in a similar way. In each case, I saw an ad or happened to catch a glimpse

of these things at a time when they were salient in my consciousness (as I have explained in more detail previously). The experienced aspect of these things cannot be discounted. I think sometimes these things enter into our subconscious and affect our mood even if we cannot see the connection because we are not paying attention to it, and it only enters some part of the brain vaguely. We previously had no framework in which to "see" these things. The connection between the unity in the universe and our own consciousness seems to be available in these relationships. The movie "Dark City" came out while I was doing spirals at work on stuff, and a friend of mine there told me about seeing that movie-how it echoed the same themes I had talked about and was full of spiral ideation. I found out about the movie "PI" similarly—also full of spiral ideation. The Truman Show, Dark City, The Matrix, Star Wars (with it's "Death Star" that is artificial and deadly to the "real worlds"), Pi, etc. and many, many others all echo these themes of an artificial reality. They portray a focus of that false reality in base desires or dark powers, discovering the secrets of the universe, and reaching freedom or truth and a new realm of possibilities with powers of the mind or "the force". The programs, or the memes, are what we must break out of-we must construct a far greater culture out of pure beauty and truth, one full of life, when we realize the dynamic creative relationship between our minds and the universe. All the worlds a movie screen too-with which we can learn what motivates us. The feeling in E.O. Wilson's (1998) book Consilience on finding the unity in knowledge also foreshadows this theory in this book. Finding that book on the shelves was another experience of parallels to contents of my own consciousness since I was thinking about these things at the time. To the extent that we are on this path in our civilization, our greatest minds align to it and our power increases exponentially. Let us hope that we have the resolve and power to reach escape velocity from our dark, violent past. It looks like we do.

29) On page 12 of the April 2002 Discover magazine (Vol. 23 no. 4) with "Where did everything come from" written across the cover, is a picture of Matthew Broderick (as Ferris Buhler). In an "ask the wizard" article about ringing in the ears. A guy at work just recently in the last couple of days asked me that same question (very noisy at work) and I didn't have a good answer at the time. We talked about it for a while. The facing page (ad for a book club) contains a lot of physics books—2 of which I have (I just received the "Time Travel in Einstein's Universe" (Gott, 2001) from Amazon.com on the 29th of March). I have read Stephen Hawking's "Universe in a Nutshell" (2001) recently, and that was one of my favorite books ever. The obvious relationship of those two books to this thesis, and the fact that I considered many of

the events in Ferris Buhler to parallel many of my own exploits as a Chicago suburbanite, further increased the meaning in relationship to the continuity of my own consciousness.

30) I had learned about the Falun Gong religion over the last year (as I said earlier)—I had seen something about them in the news or something during that time. That in itself was a huge, meaningful event for me. I found their swastika symbol intriguing and began to look for information on the internet. I was amazed at what I found and how similar the ideas of that new spiritual practice were to the theory I was writing! For example, the falun Gong symbol is called "The Wheel of the Law of the Universe" and contains a large swastika surrounded by smaller ones. Recall from earlier in this chapter that on February 6, 1995, Li Hongzhi had written about the Falun Gong and wheel of law: "Extensive and Profound; The doctrines of the great law of Falun Dafa can give guidance to anyone in their cultivation including those who have religious beliefs. This is the principle of the universe, the true law that has never been revealed. In the past, humans were not allowed to know the principle of the universe (Buddha Law); it transcends all the sciences and moral principles of ordinary human society from ancient times to the present. What has been taught in religions and what people have experienced are only superficialities and phenomena, while its extensive and profound inner meaning can only present itself to and be felt and understood by the cultivators who are at different levels of their true cultivation, and they can really see what the law is." This quote is definitely worth repeating. We can see spreading motivations in it, our future in it. Our ideas about laws, our implementation of political laws backed by force, are just people trying to act like whatever created the universe again. We got even that idea as a reflection from the way the universe is set up, from the patterns in it and therefore it works. The logos echo works that way-its real working information exists in approximations on different levels. Even our court systems and their dependence on truth for justice is just like the real world in its patterns over larger time periods than our short lives. The idea came from these larger patterns creating us. The teaching value of our justice systems is as important as the justice meted out by them itself. We learn from their organization, and the justice in them, about the real world around us as if we were watching a grand charades game pointing to a higher reality beyond our lifetimes, our perceptions, and even beyond our universe. We have higher courts, and the supreme court is the supreme legal authority. In the universe the supreme law is the organization of information into higher truths. Truth drives the organization of natural laws and the organization of life. Existence over time and space toward higher levels of meaning, and less restrictions on possibilities eventually. The children of God and the universe are two aspects of the

♦ *The Textbook of the Universe* ♦

same lineage. The problem is that the idea of human laws is a technology once again that can help us or totally destroy us if it goes against the higher laws of the universe and creator. If the wrong people get into power or the wrong laws are passed, the court then enforces destruction. It may enforce destruction, but we may not see that clearly on a wide enough scale to be able to overturn this authority that still has authority over our hearts in its very pattern and symbol of greater things. We must understand where these things originate, look at the big picture, to decide properly and not be fooled by only the semblance of authority and power driven by base or more immediate and ultimately destructive motives. If good people eventually are forced to break laws to fight an unjust or untrue system, then they become imprisoned and persecuted against the higher laws of the universe. Government is totally dangerous this way-as our founding fathers here in the U.S.A. Knew. That's why they took every opportunity to limit it. Directly related to this, George Washington said: "Government is like fire: it is a dangerous servant and a fearful master" in his farewell address. Separation of church and state acknowledges the embedded flaws in our organized religions, and allows us to move forward in the future. We are still "One nation under God", however. Political laws (or religious ideas) here could not interfere with the larger universe of truth and its purposes. Now our politically correct ideas foreshadow our own deaths. We outlaw important research and say cloning is "immoral". We frown on consideration of individual differences. Freedom was meant to counteract just these kinds of wellmeaning but deadly forces. Freedom and a ruthlessly limited government backed by the power of a people with vision cannot fail to reach its goals. You don't need freedom to protect those all doing and thinking the same things, freedom protects the birth of the future in man. Freedom would have protected Bruno the philosopher (and others) from the well-meaning murderers in the church/government, for example. Ironically, Communism is one of those law systems that goes almost entirely against the laws of what originally created us. The only way we could ever entertain a pattern like communism is if we also undertook a program of intense eugenics of just those kinds of people who cannot live or operate under the directives and tyranny of communism. They follow a different authority which already creates sort of a central planning when we have freedom with these kinds of people. In a way, communism is the ultimate false authority because it looks like the patterns we naturally make on a larger time scale in civilizations, yet removes all the higher purposes of that higher pattern. It does not require us to think about larger issues because that is taken care of for you. Communism is ultimate destruction and blindnessplacing earthly authority supreme in front of the unity of truth. Pure institutionalized selfish animal desire which quickly destroys those who

want to follow any higher authority and rebel against the Earthly. The Falun Gong religion became more popular than the Communist party over in China, and was itself OUTLAWED by the laws of those in power there. That began a period of intense persecution of Falun Gong members which you can read about online at www.faluninfo.net and other sites. How clear can it get? Communism here outlaws the "supreme law of the universe". Communism is an anti-religion-one that turns away from the creator, works against it by restricting the free expression of information in advertising, restricting the rewards offered to the builders of civilization and captains of industry, and removes all higher aspirations of a people. Aspirations underlying religious ideas which communism simply defines as "opiates of the masses". It is the turning of all forces in a civilization toward immediate survival needs. It is a system which eschews the heroic sacrifice and perceptions of greater patterns and becomes the ultimate law itself. It IS a great wall against the entry of the creative. It is a pattern for eliminating the genes of creation from your people, the power of a people. You can't be different, you can't do your own thing. Communism thinks it knows everything and can decide what is best for a society, when it does not. It is only a partial story. We already HAVE this sort of organization naturally-the difference is that this one looks a bit like that one part of our unspoken pattern and so we are attracted to it like moths to a flame. A flame of deception and destruction—the fires of what religions call hell. Even modern liberal ideas of egalitarianism, be here now, free pleasures, disdain for authority and the building power of freedom and economics is pure destruction talking us out of following higher patterns. Tempting us with lower drives, emotions, and pleasures meant to serve higher things. The real estate of the heart by which we love is leased to us by higher powers. We must be careful of who we rent our minds and hearts to. Looking beyond your own life and times is the essence of unselfish heroic endeavors like building pyramids. That shows the aspirations in the heart of the people, and is something that sends a message into the future for us to read. In the United States, the founders wanted to ensure freedom for the expression of the ultimate law of the creator, for the play of the information and purposes of the creator. That's why it says "in God we trust" on our money-not in the decisions of elected officials over time. Those with selfish desires are not supposed to prosper as well in such a system, yet they now do by promising selfish rewards for votes. In the past, voting was limited. Now everyone votes and watches TV-a biased artificial reality by which we now interpret the world. The inventor (as opposed to those who now control it) of television was a farmer who got the idea from the rows of crops in the fields to make a scanning line of electrons. That is the real use of these communication methods-as crops are sowed, so ahouls we sow the right seeds of the future in these things.

We need to sow things which grow toward the sun of truth in order to fill our grain bins for the future. People vote according to what is good for them now (supported and encouraged by TV and the newsmedia), and sacrifice those long-term patterns which the founders were in the right place and the right time to miraculously put into place here in the "New World". Our freedom is an achievement greater than the pyramids, because it can actually serve the practical purpose of getting us there. We have let it slip dangerously away, and let the wrong people with low motives largely come to control it and us. Western freedom is a pattern suitable to genetically European minds and their knowledge seeking above all. In China, this communism may not be an entirely bad thing for them since they are more static and resistant to change as a general pattern anyway. We should not force others to be like us. Following our own paths based on our own abilities and motives, not political force, is very important for those seeking to move forward. The biggest problem in this country interfering with the natural order is the media-the press and the movies which pump utter garbage speckled with bits of truth into our young people. This is a bad karmic cycle for civilization. It is confusion, and on the grand scale of things confusion means death. It is a classic trap pattern-baited with truth-to specifically destroy our best people, people of spirit and truth, people of the life force who need truth beyond any normal conception of it. We are being destroyed unwittingly by the technologies which arose originally to help us communicate and move us on the right path. Symbols and speech allowed us to grow, but also allowed those with completely different motives to look like us and manipulate us with the symbols. People with entirely different motives are drawn to these things built for our own grand purposes as rats are drawn to grain in our granaries meant to sustain a civilizations future. They hunger for money or power to the exclusion of all else. The informational or even genetic seeds that get planted by them and their agenda even can come to grow in our own people under powerful selection pressures and political forces. We see the culmination of aspects of this pattern and its growth in communism. Civilization can come to increase and encourage these people because short-term patterns can outmaneuver and outbreed those with their eves on larger things. A body is similarly invaded by a virus. These are diseases of civilization. People are much smarter than rats, and can gain political and all sorts of power while still motivated by rat-like survival patterns—especially when we allow them to gain access to our symbols and technologies either informationally or even genetically if we mix. This throws the whole trajectory of civilization off to select for (make an attractor for) and create a mind-numbingly destructive and intelligent well-armed pattern of an animalistic nature. Women learn from the ideals in a society like this to be attracted to the wrong things

in potential mates too. We de-evolve with a vengeance on the fast road of destruction. More salient lower motives combined with a higher complex, detached intellect is suicide for truth, justice, and civilization. We need roots, grounding, and power from higher patterns. This destruction might happen beyond the time of a single life, but it is extremely fast on the evolutionary scale of things-an explosion of permanent destruction only palely echoed in the threat of nuclear weapons. This is powerful selection pressure for these types that paradoxically only arises because of civilization. Selection is very rapid in the time scales of the universe. This is THE paradox of civilization patterns we must solve to survive. It is easy to see that all of our technology and knowledge arose for this one true purpose-to solve the root problem in our reality that we might make the leap to a new age. Nuclear weapons are not even a significant factor in the dangers of the future-since their use depends on the information the people get which comes from the media. Messed up genes, and messed up information are destruction for organisms. Any motives other than truth ARE destruction. These things can grab hold of us, and then we are lost. We see the themes in many religions that we need to transcend and resist the animal emotions for this very reason (although transcendence of these things for no good reason also has gotten out of hand and too extreme—as in celibate priests). The theme has practical, if long-range, implications for survival and has deep spiritual meaning. A big danger of the reflection of symbols everywhere is that it opens up a new environment for the survival of destruction itself-in that the reflected symbols can be learned from the symbol readers and makers and then used as levers to manipulate them for survival purposes. These can be learned as protective emotional levers by those with destructive natures. This pattern itself echoes all through nature, thankfully—so that the symbol readers on the path of creation can discern them easily by extrapolating from these lower level patterns. This is part of the grace of the logos-echo too. For example, we can see that a virus can enter an intricately organized and beautiful body of a human with only one blind purpose-to survive. There is no higher striving to a virus. It attaches to a cell that is part of our symphony of cells and replaces the instructions gained and perfected over millions of years of trials pains and death with patterns which serve its own base purposes. The virus is then unwittingly reproduced and proliferated by the cells themselves. The virus has no long-term vision, except that it jumps to other cells, and even other bodies after that one dies from the wrong information injected into the nucleus, or center of information in the cell, and so the virus keeps on surviving and moving. It readily mutates (changes its looks) to stay one step ahead of our immune system. In AIDS, we see an ominous change in that balance. The immune system is attacked directly-as if the virus began to see the pattern of what kept it from

total success. Civilizations have immune systems too-and all sorts of people who learn very quickly. The virus is open to more change than cells for the simple reason that its processes are unfettered by the demands of such a delicate symphony and its part in it. The trick we need to do here it seems is to learn what the patterns of behavior of destruction look like, and what they foreshadow. Then we will be able to eliminate destruction and death entirely from our world. Civilizations are exactly the same way—we need to just ratchet up our knowledge on the logos-echo principle again here. Holldobler and Wilson (1990) do this by showing a similar pattern (survival "attractor") in certain parasitic ant species whose rogue queen displaces an ant colonies true queen and tricks them into bringing resources to make more parasites. They willingly contribute to their own genocide this way-by being fed wrong information. Wrong information, or even limited information, spells death for civilizations in the same way. Many times in the past this has happened because they did not have enough information to see the signs of destruction and also the potential in the signs of creation. This has been a slow war of creation and destruction-the latest outbreak of which was a few short decades ago in Nazi Germany. They were the most advanced (technologically), intelligent (measured IQ), and motivated people on earth toward the higher laws and truths in things, but wrong information on our parts, and limited truth on their part brought us all down as they played into the hands of the negative patterns. Down to the trenches of an insane war of ignorance and deceit. All the soldiers of that war-like the soldiers of the civil war here—were soldiers of truth and light twisted to fight each other by half-truths and political machinations compounded by the rise of communism. This must not happen ever again. The future is too precarious. We can stop it forever. Whole truth must come, we must be entirely motivated by truth. The ideas and explanations we receive for these things in our schools are completely inadequate and misleading. We must realize these higher laws-as in the Falun Gong religion-that transcend all organized religions and governments. We must understand the motives behind the information we receive because two exactly similar behaviors can have different motives and that makes all the difference in the long run. Two people can say "love", "justice", "truth" and mean entirely different things by them, for example. One might define these according to personal desire, while another defines them without reference to his own immediate person at all. We must have a solid basis for morality and decisions-even if completely uncomplimentary to certain groups of people, ideologies, or ethnicities. Whole truth is the only thing which we will find a future in. Even the Falun Gong spiritual practice is less a truth source in itself than a pattern we can learn from that is a symbolic reflection of the actual truth of things which will help us to accept it

when it comes-as freedom allowing acceptance of change does here, or as alchemy contained the incomplete spirit of chemistry. It is the Chinese version of the Copernican revolution in a way. The sun symbolizes and actually reflects the ultimate law of this universe. A foreshadowing or reflection of the truth that is coming, that is actually being built in Western civilization and science-which seeks the ultimate law of physics among others. We barely made it ourselves and burned great people at the stake in the process—such as the philosopher Bruno. We attacked the "heathen" Indians, mayas, Aztecs, and Incas because we did not see the language and gold of what we could learn from them, and also to protect our pattern and genotype. There simply was not enough information then to do otherwise. There is also evidence that caucasians were here in this continent first, and later the Indian patterns took over from them (they were effectively destroyed). Bones have been found from as far back as 11,000 years ago supporting this. Our dark past, and the destruction of it, must not repeat. We must learn from these larger patterns of history. In later chapters, I go into more detail about how we will find this truth which will save our future. We need to understand and learn from these symbols, and these events. I expanded on this example a lot to point this out. The main point of this is that the more truth you get, the more conscious you get, and the closer to the creator you come. Our own consciousnesses, if we are properly endowed genetically and informationally, can have organizing effects on things. We begin to echo that which made the universe in this way—we begin to be a part of the creation process itself, we become children of the creator this way. The universe itself works like that and is constructed like that. When we are intimate with the laws of God, we have the opportunity to become the lifeblood of God's purposes on Earth. That is the essence of the rigorous, complex. echoing, poetic rationality which appears to have constructed the universe and which the ancient Greeks named "Logos".

31) My trip to Skovde, Sweden (TSC 2001) was the first time I had really put all of these ideas out there in public (Romer, 2001 a-e), besides the glial cells and consciousness aspects which I had written several papers on. I constructed a web site full of pictures and etc. of the various events and coincidences of meaning like these that happened there at my web address: www.logosecho.com. Go there for more evidence-there are several more excellent introspective experiences like the ones included here. One was an actual pyramid as a sign for a town which had the English words: "Center of Innovation" on it—which is what my theory says about consciousness and the symbols of it in older civilizations. There is also a discussion of the glial cell-consciousness idea (Romer, 1993 and 2001d), the logos echo, and the introspective methodology I devised. This methodology should take on more and

more meaning as I take measures to explain the relationships fully and to relate these things to the larger picture of life.

- 32) Now a few more diamond examples as I promised in the chapter on "Going Beyond our Evolutionarily Limited World View" (Chap. 2). This first one involved one of my favorite songs by the band "Creed" that goes "can you take me higher..." and something about being strong enough to realize you dreams. I had been considering the diamond shape and the destruction along with the creation that sometimes needs to take place within it in order for things to move forward—up to a point. At some point, destruction is no longer needed and needs to be subdued or transcended in order for the future to arrive. That is the essence of a revolution—one that goes higher, anyway, like the emergence of a new species. Creation needs to be able to win over any destruction it encounters-such as an element of the past (rat, roach, greed, desire) come to take its food or children which are necessary for the future. In life, advancement is enabled by the greater weaponry available to the advanced. With this weaponry, we defend our gifts from, and path to, the creator. When those not so enamored of truth get hold of these, they are used for selfish reasons-to get money or food with abilities they did not create, with technologies they could not have invented. If monkeys got hold of guns, there would be chaos. This is the same as the form of a lie: the semblances, the products of truth, out of context and embedded in destruction-a lie can protect you from punishment unjustly and bring unjust rewards too. Lies are mostly used to avoid punishment. Children cannot handle guns for similar reasons. They have not learned enough yet to have good judgement, or learned to subdue selfish impulses for higher patterns and purposes. This song was on, and I drove past a truck with "ACE electrical contractors" on it with yellow lightning inside a blue diamond and the word "ACE" written in the diamond. It was 7:50 on 4/24/02. Teachers use laser (coherent light) pointers to teach, but soldiers and police also use lasers to target enemies for dismissal from this earth.
- 33) To lead up to another diamond example, and an example in itself, I saw a Smallville (television show) billboard appear right across from creation machining and by the kings castle learning center in the triangle formed by the roads Raj Road, Western Avenue, and Woods-Smith road. I had collected Superman stuff since before we lived in Memphis, and there were many events there related to Superman stuff. I had bought Superman stickers for my car in Knoxville from a national car parts store chain, and then noticed they were made in Louisville TN 37777 zip—the same town and zip where I worked, etc. etc.. I also had Superman floor mats in my car from the same store. The billboard appearing in that triangle near my house on Western Avenue for my

favorite show on TV was meaningful enough, but then that same week for the first time I talked to my friends at work about having run for office in 96 because I used an old campaign sign that was in my glove compartment to write notes about work from some guys at work and they saw it. I never talked to them about it in the years before that. I thought it was a sort of silly thing considering that I don't really like politics and because of the fact that it is a pale echo of the real power in knowledge, etc. That Tuesday, on 4/30/02, Smallville was about Clark running for office at school, and losing, and feeling just like I did (at first) about it. These things—billboard proximity, episode theme, talk at work were related by timing, themes, and also by my background of experiences and activities.

- 34) This example is taken from the 9/24/02 notes of this event. Meagan and I were talking about synchronicity and events which align with our thoughts and deep desires for truth and how it is reflected in events all around us. Then about an hour or so later, we were watching the Smallville Superman season premier and we noticed that his spaceship was flying around in a tornado storm turning all sides over and over. I could only see the shape for the first time then since it was tumbling through the air and I could see all sides of it. Before that, it was covered or in the dark mostly in the shots they showed of it. It was a near PERFECT reproduction of my diagram for the forces in the universe. It was kite-shaped in the same proportions as my diagram (when viewed from the top), it even had the same lines drawn on it—the two crossed lines, and the part on top bisecting the upper pyramidal portion of the kite shape where I show consciousness arising. In the middle of the ship was a round bulge, which was the only difference, but even that was something I considered putting in there in the form of a round spiral shape denoting the spacetime smeared-outness of the unity therein. My first book draft actually had this as cover art with the spiral in the center of the diagram. It also made an ancient sun-sign symbol with the circle and cross shape inside it like that. I always liked the idea of Superman getting power from the sun. I had noticed the sun imagery in previous civilizations and in religions too.
- 35) On 11/05/02, I was watching Smallville Superman show on TV, thinking again about how awesome that spaceship shape had been, when a commercial for Lord of the Rings Extended DVD edition came on with the lone symbol of a diamond with a cross in it on the covers of the boxes just like my diagram again. I had bought tickets to Wagners Die Valkyrie opera in Chicago recently and we had been talking about that. I was explaining to her that the opera was from ancient legends of the Northern Europeans. I told her that the Lord of the Rings movies were based on the same kinds of imagery and same kinds of legends as

the "ring" series of Wagners operas. The Opera itself was excellent—with Wotan ascending to the top of the pyramid lined with light and people on the stage.

- 36) Another day, I was talking to Mom about Noah's teacher. It was about 1:00 PM. Noah said her name was Mrs. Ramey when Mom asked. I said it again too correcting the slight mispronunciation. Mom said "is there a Mr. Ramey?" Noah said "no". I made an attempt at humor with the comment: "Unless she's a nun, there's a Mr. Ramey" (because of the Mrs. In the name, because nuns marry Christ, etc...). It was a pretty bad attempt at humor, but then I left to pick Meagan up at the train about an hour later. We were driving down main street when Meagan pointed out that there was a nun in town standing there at the trunk of a car right out on the street in full habit—with the shoes and everything.
- 37) One more diamond example from TV was pretty stunning. On 11/15/02, right after I wrote a bunch of notes about confusion, lies, and the triumph of truth "apocalypse" stuff in my notes on 11/14/02, I received an email update about a show I used to watch regularly with my wife called Angel. I normally delete these things, and was briefly even trying to see how to stop them coming at one point. I am glad I didn't. One showed up on 11/15/02 at 8:41 PM entitled "The Apocalypse is Coming". I clicked on it and found a link to the webpage for it. It said "The Beast" has risen, and the apocalypse is coming. It is intriguing, but the meaningfully related diamond part is the same diamond with a cross shape in it AGAIN that is prominent across the whole TV trailer and preview of it. You see it in the burst of fire and the words apocalypse. You see it hovering over the title. You see it ghostly in the background of the city (Los Angeles). I have been feeling more and more that I am bringing the apocalypse-the final battle of good and evil-with my theory organized around that essential shape. By this theory, and this knowledge from it, we will be much better able to recognize good and evil accurately according to the purposes of the force which constructed the universe. For example, the idea of "good guys" and "bad guys" in the last several wars we have been involved in-from the Civil War to the present day. Ignorance, lies, lack of information, half truths, etc. are causes of those wars-not "good guys" and "bad guys". Things are much more complex than they seem on the surface. History is written by the victors. We cannot tell what is lies baited with the semblance of truth and what is actual whole truth without having a large enough amount of information to construct a sort of "periodic table" of whole truth-indicating what even the missing elements must look like. The top and bottom of the diamond symbol in the Angel "Apocalypse" show even had light spots at the intersection of the cross in the middle on the bottom and the top like the

2 light spots in my diagram. In the show, the beast-thing makes the diamond out of bodies. In my theory, death eventually culls out untruths and hones the ability of minds and bodies to reflect truth. It has been a billion-year arms race of creation against destruction. It has been quite miraculous, because there are many opportunities for destruction (any other charge on electrons or protons would have been destruction). Will, the life force, God, whatever you want to call it, has kept us on track in large part by eliminating the effects and influences which destroy the future. We must ourselves always be vigilant to these teeming destructive possibilities. Ignorance, whether scholarly and learned (but learning the wrong things or for the wrong reasons) or from not learning and not primarily valuing truth, is destruction. These factors-whether genetic or environmental-make a person into a soldier of destruction, even unwittingly by deception or half-truths in people with otherwise good hearts. People genuinely looking for leadership from good people. According to this view of the universe, a nation is actually "judged" not by how it treats its developmentally disabled people, but by how it treats its best and most truth-loving minds. Whether we like it or not, whether it makes us feel good or not, this is a fact of how the universe was constructed. We are judged ruthlessly and automatically. The universe could not exist if this were not so. We are balanced on a razors edge, and our predicament grows more precarious every day we do not realize this fact—a fact as sure as the dinosaurs mastering the Earth, but suddenly going extinct. The children of the life-force, the creator, demand our vigilance.

38) I recently began talking to a girlfiriend (hereafter referred to as "M") I used to go out with after attending my 20th high school reunion. Here older sister was there and I asked her about M, who now lives in California. She was one of my favorite people I ever met besides being my past girlfriend. Recently (late Dec. 2002), she flew to Illinois to visit her family for the holidays and we had a chance to see each other again after 17 years or so. We talked for a while, and after dinner she brought out some pictures from a recent trip to Peru. Over the past few weeks, I had added in all the "diamond" examples here. She had visited Macchu Picchu and I was very interested to see those pictures. I had always wanted to go there. As we were looking at the pictures, I noticed a petroglyph which was a diamond shape that I had never seen before on any photograph. It had set of two crossed lines within itexactly like the diagram in my book. Additionally, it had two corners bisected by another line across the end like my diagram as well. As we were looking at the pictures, I mentioned about how after our tour of the alps in Germany, I noticed that pictures never seem to capture the whole panorama from the mountaintops that you actually experience all around you in those situations. In short order, M began showing a

series of pictures which together showed a panorama, saying that she wanted to put them together. I thought that was also pretty poetic considering the metaphors of mountains and pictures of the world we see which I am attempting to knit together in my book. The diamond diagram I saw later was definitely part of the set of pictures we need to put together from the perspective of this book.

39) On the previews I saw on 11/19/02 at about 9:00 PM for Smallville for 11/26/02, the show was supposed to be about a "prophecy" and how the prophecy was about a super man who came from the sky with the "strength of ten". There were rock paintings in a cave which showed the prophecy. Specifically, they zoomed in on spiral rock paintings to fill the middle of the screen—like the ones I saw and photographed the first time I was in Tucson, AZ for the consciousness conference, and like the one in my book. Also, for the first time, Clark was riding a dirt bike with his black friend when he fell into the cave with the rock paintings. I had put several spirals on my XR650 dirt bikepainstakingly cutting 2 spirals out to put on each side with sunbursts surrounding them. This is part of the reason a friend of mine I rode dirt bikes with told me about those movie with spirals. Once, coming home from work at night on my motorcycle, I had raced offroad when I saw him coming past in his jeep--into a construction site. I climbed a large dirt hill and turned to go down and there was just blackness. My headlights showed the high-contrast edge of a cliff. They had been excavating the hill on that side. I fell into this huge hole and ended up going to the hospital to get 5 stitches in my chin. I had also ridden an older dirt bike I had painted a large spiral on to work in Memphis-the parking lot was so huge that I brought it in my truck and zoomed across the parking lot to the walking bridge over the road where I locked it to a fence there. I had several friends who were black while I worked at FedEx in both these locations. I had been thinking about those formations in Tucson just today because my brother was flying a plane down to Tucson Arizona for an aquaintence of my Dad's in order to build up hours and get some flying time in. I had been at the airport to see him off that day. I was supposed to go, but had to stay and write more instead. I had also been writing about spirals and space-time stuff in the book earlier that day. Also, the day before, I had ordered some "No Fear" racing stickers at work with a logo involving the superman logo shape and even a sun on top where the top of a diamond would be-exactly like the logo and sun for my theory again. Travis Pastrana (with the spiral helmet) races for No Fear. The colors of that sticker reminded me of him too. I have a "Save Tibet" sticker with a pyramid and sun at the top hung directly over a superman shield logo I had found while working in Memphis at FedEx right by my desk. I hung them over each other because together they look just like the ideas of

this theory and my diagram. Seeing that "No Fear" sticker with a similar motif was meaningful in itself. I remember when I first saw Travis Pastrana's spiral helmet—given the spirals I painted on my motorcycles, etc.. That was a meaningful event too. On the 11/19 episode where I saw the previews with the spiral cave, there was a shiny silver steel "S" made by Clark in metal shop on the show at the beginning. Right before Smallville came on, I was making shiny silver 3-D screensaver words on my computer. For the first time, on that day, I had discovered the screensaver makers which came with the Windows XP operating system and was playing around with them that day because I had just made a separate windows log-in on my computer for my wife so she could use the internet. These were other sorts of "nested" events within this other one. That nested quality helps you too see how complex these things can be. It takes a lot of attention and memory to make notes and describe these things as they occur. For example, the previews lasted a few seconds and I saw the parallels instantly, but it took me an hour to write down all the information coming to bear that I saw and which had emotional impact on me then. To fully describe all the complexities and woven meanings is probably impossible. You have to experience it. In this, we need to realize just how inadequate our human sets of symbols and languages are in describing the ever-changing nuances of this aspect of reality. Earlier that day. Scott and I had been discussing an event that happened to him involving reading about a model of Stonehenge made by Sam Hill out in the Pacific Northwest. Right after he read in Neil Peart's book "Ghost Rider" about his motorcycle travels to this place, Brett (a friend of ours who moved out there) sent him an email about this same structure out of the blue. Scott and I also had a conversation about Mexico city and the volcano there. I said I had always wanted to go see the pyramids there and visit Mexico city. Also, I had learned Spanish in high school. I had just sold my motorcycle (for financial reasons) to a couple of guys from Mexico, who were going to be traveling down there with it and through central America and we had talked about that too. I had ordered a book today about the swastika as "the oldest known symbol" found everywhere in the world before the show (even found in Indian burial mounds here in the USA—such as a copper one found in a mound in Ohio. Burial mounds are an interesting metaphor for life too). I was thinking about the repeating themes everywhere in things as related also to these things. I had been thinking about how these artifacts and symbols in archaeology could allow us to trace the roots of civilization and its people-to find our origins and our future. That was the message of the cave paintings in the Smallville episode I saw the previews of that same day. Also depicted was a pyramid of men. My grandfather was in the cavalry and was a stunt rider who was the top man in a pyramid of men on horseback. He had gone down to fight

Pancho Villa near the Mexican border long before I was born. I have long thought he would have been a motorcycle rider today-a natural counterpart to the horse in the modern age. Recently I had been thinking about him because Meagan had brought home a Davey Tree Surgeons calendar that had a picture of a "Roemer Catclaw" tree growing outside the Alamo in Texas where some famous people of history in this country had once fought the Mexican people too. My mother had also scanned and printed a picture of him sitting on his horse recently. My brother's flight plan to Tucson in the above story took him right along the border of Mexico I had noticed that day too. It is difficult to explain all the lines of meaning surrounding such an event as this episode of Smallville. The timing and experiences in thought are especially difficult to convey. I think you can see how these things get woven together though. They create a cycle not unlike the Karmic cycles of the Hindu religion. All the universe on a much larger scale is just like this-it is an infinite loop or Oroboros itself in reference to the Unity within it. A world-tree with the branches woven into the roots. Alpha and Omega at the same time.

- 40) Some time ago, related to spirals again, I also had a meaningful experience involving the Disney movie "Atlantis" which came out while I was considering the legend, and had noticed too that the book which pointed the way had a sort of a spiral rune on the cover. I had thought that was poetic because I was uncovering information that was "under water" too-the waters of the subconscious, and the dark waters of the origin of the present in the past. There are many more things related in this way, but the idea here is not to relate them all completely-which would be impossible to do because of their enormous complexity-but to give an idea of the processes at work underlying reality that show the intimate relationship between truth, consciousness, will, creation, and meaning in our universe. The writing in this print and paper book is nothing compared to the writing in the great cathedral of the universe we live in. We should properly be in awe of that writing, not what a man writes from his love of that. We should properly see that writing, which is the purpose of all writing we do. We should read the book of life and see the meaning behind the patterns of it.
- 41) One more recent example happened right after I had written about themes threaded through our stories and had used the example of Pinocchio. I came down stairs for the first time on 12/22/02 at 6:15 PM from writing and thinking about these things earlier that day. Pinocchio was on TV downstairs on UPN. Part of why I came down was to eat, and I noticed that Elijah's Happy meal had a Pinocchio figure in it right as I was wondering at Pinocchio being on TV.

42) There have been lots of music related meaningful events in my life where I will hear a new song for the first time right at a synchronistic nexus of events, etc. These are a great source of these experiences if you just let the radio play and surf channels. The internet can work that way too. Freedom and randomness count for a lot in these things. One of the more recent for example was with Cheryl Crows new album "C'mon, C'mon". I have a copy of the movie "On any Sunday" with Steve Mc Queen signed by Malcolm Smith—who I rode with on 2 occasions, once in Alabama with the Alabama trail riders association and once in Tennessee with the Volunteer State Trailriders Association annual ride at Loretta Lynn's in Hurricane Mills. I had seen a bunch of things converging from that theme over time. I had also bought the movie "The Great Escape" and thought about that in allegorical terms of escaping the negative stigma placed on National Socialist German ideals in order that we might pay more attention to our genetic progress in the same way they did but avoiding their pitfalls. Eugenics was gaining popularity all over the world during that time, and the world war had a stifling effect on this all-important area of our knowledge. I had read a lot from that time period recently-including things Charles Lindbergh wrote about not getting into that war with Germany (for which he was ostracized and vilified by the press). I had also Read about Henry Ford's writings on the topics involved at the time, and how he had contacts within Germany then, and won an award from the German government even. Anyway, I heard the song "Soak up the sun" which had instant obvious meaning to me at the time in reference to these ideas I am writing about. There are so many relationships woven through this one experience, that it would be hard to write about them all in one example. I later heard "Steve Mc Queen" and really loved that one too-the part about needing a fast machine was especially pertinent considering the speed that thought must take, and the work that must be done, in a single lifetime to reach transcendence (like a rocket reaching the speed it needs to break free from Earth's gravity). Also, the speed with which we need to make the changes that are now needed in society (genome project example, the faster computers we have now, the information explosion, etc.). Speed is everything sometimes. Recently too, I saw an ad I really liked because it resonated well with these ideas and was a definite meaningful experience. It was about Ford's philosophy for making cars in a magazine (this is a whole other event I won't go into here-written in my notes-that I am referencing for the purposes of this other experience in the Cheryl Crow music.). I had also seen a poster for the movie "The Great Escape" which I had wanted to purchase online in the past year. Anyway, I saw on TV in the last month (Nov.-Dec. 2002) an ad on TV for the Ford Mustang using footage from the Steve McQueen movie

"Bullitt" where he is jumping the car through the air in San Franscisco. All of these were meaningful because of the other experiences I had had which were connected to these, and their timing as events in relation to my thoughts and work on the book-to make a long story short. Additionally, I had really liked the song "Sorcerer" that Chervl Crow did with Stevie Nicks before this (the video was great-lots of large language imagery written all over the room they were singing in, which was also extremely related to my theory and my experiences at the time also written in my other notebooks), and then Stevie did "C'mon, C'mon" with Cheryl on this album. I was considering putting more music examples in, but realized that most of my music example notes are in storage right now. From Journey to U2, there are a lot of them. I am planning another much larger volume of these kinds of experiences which show these larger patterns at work related to consciousness, and I will include them in that if there is enough interest. I think the examples I use here make the point well for the purposes of this book, however.

I love the idea of gene/meme co-evolution, and in this view, genes and memes are really the same thing. Memes are self-sustaining information systems that share some characteristics with the survival processes of life. They use us as their environments in which to be sustained and replicate. Religions, political ideas, etc. have been analyzed in these terms. Memes are like antlers at their worst (symbols used for fighting and "politics"), and like the paintbrush of Michelangelo at their best. Animals have culture as evidenced by their variations on various themes. For example, different types of antlers and horns which are actually all "saying" metaphorically the same thing, have similar motivational significance, and are sort of false idols of these principles in their limited frames of reference (which once again also have practical use in fighting, defense, etc). There is information there beyond the use and biology of horns—just as there is in our automobiles beyond their use and mechanics. Horns go up to a point, or come down from a point, and some are actually spiral shaped. Antlers branch off like the paths of events selected out of possibilities by consciousness, or the tree of life (they are really mirror images of each other). Horns always come out of heads. They are partial symbols used for fighting and and intimidation in this overall context. We must not be blinded by the practical application of things that only serve to underscore the real message, the real symbol, the real truth behind them in the future and beyond this world. Great art touches you deeply and is meaningful because art is life. The more knowledge and order you introduce into these relationships, the more the practical and the meaningful are thrown into relief. Flying reindeer pulling Santas sleigh fits these patterns exactly-along with the excellent symbol of Santa. All those minds affecting the decision-points and flow of reality with whole

knowledge and love of truth are pulling something awesome through the sky which will give us gifts of great meaning according to who is naughty or nice. Coal in the stocking (unhardened, "undiamondified" opaque carbon) goes to the 'naughty". These things (memes, antlers) affect the organism's ability to survive and are also symbolic in their mechanics and in the nature of their existence like all the forms in the universe are automatically symbolic too. The sun is that way, the trees are that way, skyscrapers are that way, and the origin of language is based on this fact and based on that apparatus in our brains which perceived this natural meaning. This is easy to see in hieroglyphics, but less so with our modern written symbols. That is why studying metaphor and their origins helps us to understand so much.

Humans have memes—ideas like hats with different types of horns on them that they can change at will, like clothing. They have practical use, but are also a new environment to challenge us with a wilderness of symbolic forms we must fight through and struggle with to approach that unity that is the life force. By looking at all the memes together, and finding a way through that wilderness, we see their origin and true meaning. Memes can destroy (when we adopt them as artificial facades, or when we judge others by them—"pigeonholing" them), but they also teach and those "weapons" can be turned to constructive uses that can sew the seeds of a new age if we see them, and learn from them about the folly of humanity. In the same vein, Steve Irwin the "Crocodile Hunter" (Animal Planet video, 1999) is always talking about how beautiful all those deadly creatures are, and joking about how they get "cranky"--when their 2000 lb per-square-inch jaws come snapping at him. We have a lot to learn from them, and they are beautiful-even if we do need to avoid the clash of our patterns.



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The sun signifies first of all gold, whose alchemical sign it shares. But just as the "philosophical" gold is not the "common" gold, so the sun is neither just the metallic gold nor the heavenly orb... Sometimes, as the Heavenly body, it is the possessor of magically effective and transformative rays.

I ay 5

--Jung

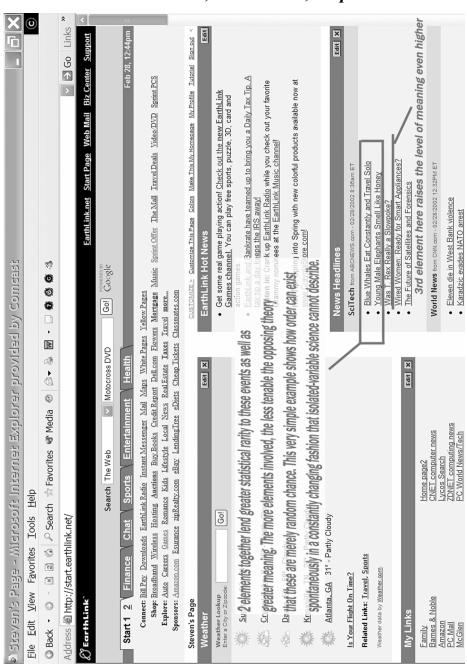
How many ideas have there been in the history of mankind which were unthinkable ten years before and which, when their mysterious hour struck suddenly appeared, and spread all over the earth?

--Dostoyevsky

CHAPTER ILLUSTRATIONS:

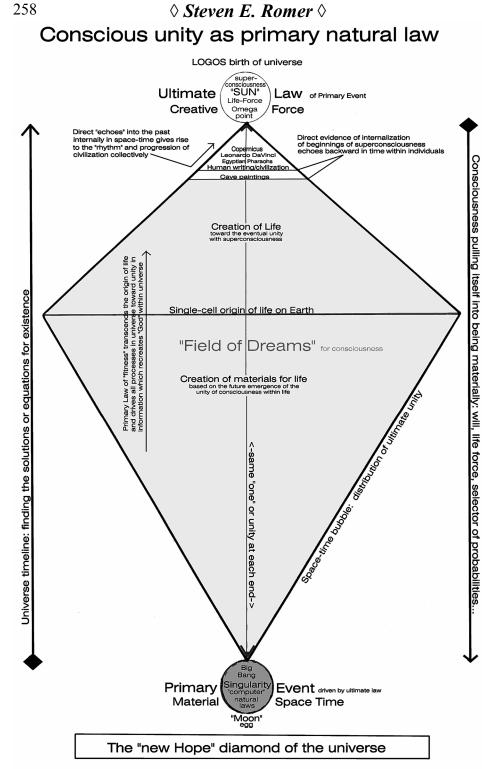
a Des had inhabited the forests and swamps for mil-had inhabited the forests and swamps for mil-lions of years. gradually disappeared. One of these of years, gradually disappeared one of the reasons they died out was that they had the reasons too big and slow to get food or defend become too big and slow to get food or defend The dinosaurs, colossal monsters that Whales were land animals then, though to side mammals dinosaurs also men and Elephant pictures I read about approximately a day and a the carth and the age of feet than from stdthemselves. The length of a blue pared to the length c a man and a small c my web home page-"slow" Whales' young whales, which are air, it condenses in f a distance like a geys more like steam. Th breathe about every Like other mann blooded. The temper the water docs. Blu under the whale's s Whales' young Blu the surface to breath through its nostrils. same no matter h temperature chan chan animals ed by the ich sur-sm. That to bre reference the here here comes in Whales Dinosaur reference The flipper is like man's arm. "SOW" uo news articles appeared A 13 foot whal weighs 33 pour too to get food or defend smaller had four ed on four that kill and anii if its bod als then. whales did all WPTC whales Je

"slow" Dinosaur, Blue Whale, Elephant



"slow" Dinosaur, Blue Whale, Elephant

♦ The Textbook of the Universe ♦



Why science and religion are one, why science is survival, why people fly kites (esp. Ben Franklin), the true nature of consciousness The bi-directionality of causation, the unity behind the universe and threaded all through it, the origin and purpose of life.

DIAGRAM OF THE LIFE-FORCE OF THE UNIVERSE

On the facing page is the diagram of how the overall theory works and gives rise to the universe with an inherent symbolic quality reflected in natural symbols, brains, and languages. This diagram also shows how life arose and advanced, and how civilization is a natural and necessary part of this overall path toward meaning and unity. Consciousness is the binding together beyond the distributed unity of space-time. It is the past coming together and building toward the creator which we will become-creating our past as well as our future in this sense. The top and bottom circles should be seen as connected just beyond the picture you see. They are actually one, but seem like two separate forces and have a different character when viewed from the interior of space-time our physiological bodies are confined within. This explains many things about our science, our religions, our symbol-reading and symbol-making abilities, our biology, and most of all our origins and destiny. It indicates answers to specific things like why humans have religions originally revolving around sun worship, and why evolution needs to be reinterpreted in specific ways. Jeffrey McKee (2000) wrote a book about a number of anomalies and considerations of evolution which fit very well via this new interpretive framework, for another example. This theory diagrammed here explains so many facts and simplifies them all that it is uncanny. When we look at this diagram with these things in mind, it is the plan and thoughts of what we have called God and therefore relevant to our religious impulses. In these various ways, this theory brings together all of the abstract thoughts of history.



Jesus spoke all these things to the crowd in parables; he did not say anything to them without using a parable. So was fulfilled what was spoken through the prophet: 'I will open my mouth in parables, I will utter things hidden since the creation of the world.'"

Matthew 13:34-35

The Soul rules over matter. Matter may pass away like a mote in the sunbeam, may be absorbed into the immensity of God, as a mist is absorbed into the heat of the Sun—but the soul is the kingdom of God, the abode of love, of truth, of virtue.

Ralph Waldo Emerson (1803–1882)



CHAPTER 7

Consciousness as the primary natural law SUMMARY and DISCUSSION

As illustrated and summarized by the diamond-shaped diagram at the end of the previous chapter, there is a newly discovered fundamental law of the universe. This is the law of unity we see and experience as consciousness. This law has been the transparent guiding principle of the existence of the universe. The twin unities of the big bang origin, and the unified "superconsciousness" we are hurtling toward and connecting with at this time, explain everything in the universe. Since the evidence is so vast and distributed in everything, since this is the great unifying and driving force to the development of the universe and life, it is certainly acceptable to say that this is a natural law at this pointeven though all the details and experiments will not be worked out fully for some time. Conscious unity and the learning and development of life towards this point is the most basic natural law. This law is the driving force in front of civilization, evolution, and the very nature of the physical universe. All of the universe is coherent, and symbolic like language, to this great consciousness beyond time now also being born in mankind. The entire universe and all of its processes are only coherent or meaningful from the theoretical viewpoint of this great unity which is echoed throughout the universe and in our consciousness. There is no other explanation for the trajectory and conditions found in the universe, in life, in language, in brains, in the progressive development of civilizations, and in the development from conception within the life of a single man. Consciousness is time and space transcendent, it unifies in memory, planning, the interpretation and construction of symbols, and in the perception of meaning as its chief characteristic. The very early universe was a unity without space and time-it contained infinite possibility out of which our natural laws and matter congealed (apparently by "chance"). The later universe is a mirror-image echo of this original unity in the progressive development of the unity and flexibility of consciousness in life, with the only constraint on the universe, life, or civilization, being that the universe must operate in such a manner, or be constructed, in order to give rise to it. Infinite possibility arising

again within the universe with certain constraints-the constraints of the laws and stability necessary for continued orderly, coherent existence. This great consciousness is the reason everything has coherence-from natural law, to our language and its structure. Since the effects are on probabilities working backward in what we see as time, this principle has been transparent to science which studies the relatively clockwork patterns of everything moving forward in time-reserving the idea of "chance" for those things not following these forward-looking clockwork dictates. Like the theory of evolution, this theory has literally mountains of subtle evidence running through language, civilizations, life, the solar system, and the universe itself. This theory is an expansion of evolutionary theory backward in time to encompass the "coincidences" of Anthropic Cosmology, through the development of life. In the development of life, this adds a subtle controlling factor to the forms of life and a sort of direction to life's development. It explains why the dinosaurs had to die off, and why we are constructed of cells with the exact same DNA in each of them. The theory explains all religion and mystical thought, from the idea of "heaven" to the existence of "God" or "gods" or even the worship of the Sun-as a REAL symbol on a grand scale of the future unity and the creative force of consciousness affecting life and development from beyond space and time in the future. Consciousness is SO fundamental, that it has been transparent to us and our science. Looking from within consciousness, we do not "see" it either-it is something transparent which allows our coherent, unified existence. It is the development of the unity of knowledge within-reflected together to a unity. The evidence for and nature of conscious processes is always reflected in other things-just like we cannot see sunlight directly passing in front of us, but only after it hits and reflects off something else. Carbon-based life, under the pressures of selection and death-the struggle of life—has become facets of this great unity like some great diamond on the horizon of our lives. To become conscious of the true nature of consciousness is the crowning glory of all human striving and curiosity. The universe was constructed by the object of our curiosity. Moreover, the universe was ultimately constructed by the object of our curiosity--no matter what we were ever curious about, at whatever stage of life. It is the force of life. Consciousness "breathes fire" into the equations.

I have investigated various avenues, and collected years of data to find support for this theory, and as you might imagine from its overarching nature, there is evidence everywhere. There is a way that I see and do things in my life that I have developed that allows me to see introspective evidence every day for the underlying coordinating nature of our consciousness. Some of that evidence is presented here in these chapters, but actually fills several volumes and hundreds of pages of notes over several years time. From this evidence, I have seen that everything we do is woven into reality for multifaceted meaning. Our meanings are woven together and events are woven together like the intricacies of a celtic knot—lines disappearing out of the picture into the background to appear in another location. Also, symbols can have multiple types and levels of

meaning depending on how far you go, or what pattern you emphasize. We talk of someone's speech being "meaningful on many levels" and implicitly know what this means. There are nested multiple meanings. There is a reason for that. Reality is fundamentally like that. There can be multiple explanations or meanings to things—as all speech is meaningful in an organizational, grammatical, and biological-need serving sense, but also symbolizes something else in its patterns and relationship to the development of life. Particular events can have multiple meanings for different people too. Some event might have one meaning for me, and another for many other people, for example. I see other people going through life totally missing miraculous events because they do not expect there to be a basic quality of meaning and coherence to things. Together, all these levels of meaning are the fabric of reality. Meaning is an intrinsic part of nature—made coherent and solidified by the principle of conscious unity.

Another way I have worked on getting evidence for this view is by studying the brain itself. I have investigated the role of dopamine in the brain, and posited a theory in one of the chapters here having to do with the role of glial cells, for example. Another way of seeing evidence is to look for any unity behind the universe which might be like language (for which consciousness seems so necessary)-which parallels and symbolizes reality not by accident or chance, but because the universe works like language. It works like metaphor and analogy, and the Mandelbrot set or a fractal coastline are mathematical representations of this principle I have called the "Logos Echo". Written language in a given book we might read has no meaning, has no life, without the coherence originally installed in it by a consciousness, and later brought to life by a consciousness reading it. Consciousness is the source of the forms and meaning for a written language-the source of life before and after in the construction and reading of a novel. Life and the universe it lives in are like this. We are reading the universe like some "2001 A Space Odyssey" monolith book lying in wait for billions of years. It seems so familiar because we resemble the author in our consciousness-we reconstruct God's thoughts. The past life is turning out to be a giant prequel to a specific future. It is finally time for the man of the future to arise.

Basic, key points following from the preceding chapters:

---God does NOT play dice with the universe, or at least uses LOADED dice. What seems like fortuitous chance is actually the operation of unseen natural law. We tend not to see it because of the exigencies of evolutionary constraints on our world view from the past.

---Religion is the LITERAL flip-side of science—since it studies forces working from the "other end" of existence, in this view as they come to light near the transition point or "apocalypse". Both are part of the exact same system of enlightenment—one enshrines the inner motivation and destination glimpsed through a glass darkly, and the other externalizes and enshrines the systematic process of getting there. They are reflecting the two basic processes of the universe from the two ends of unity illustrated by the diamond diagram of the previous chapter.

---Nietzsche said "God is dead"; I am saying "God is alive, only our old ideas of God are dead". Nietzsche also said "It takes thunder and heavenly fireworks to speak to feeble and dormant senses, but the voice of beauty speaks softly: it steals into only the most awakened souls." Which reflects this new idea of what we had simply called "God" in the past. Nietzsche could not break out of the niche of the ingrained cultural perceptions of God woven into the fabric of his world understanding. We are going to need to be able to do this now in civilization. Once again, sometimes a little truth, without whole understanding, is a dangerous thing.

---There is a commonality to ALL religions--in the future of human inquiry and the larger consciousness created, and understood, by it. People can become primary movers (co-creators)—as reflected in the teachings of many religions. European-American or western civilization is sharing in this creation by the will of God. Other races tend to reflect the will actually existing in us. This is dangerous because they are very close to us genetically. They reflect us and like Narcissus, we can fall in and be drowned. Knowledge in general becomes power—without the need for a religious framework. All of the universe is the cathedral made visible by science. Our own cathedrals are physical hieroglyphics of this higher path, and structures reflecting what is most important to us in our hearts. Buddhist stupas, pyramids on various continents, caste systems, etc. are only intelligible and truly meaningful because they move us on the path towards knowledge.

---Evolution must be re-interpreted. Evolution is not completely random mutation, but natural selection is definitely at work—the great general pressure of which is drawn towards greater meaning and consequently greater flexibility. Exaptation is not chance or accident, but required for the future. All traits arise before they are needed or

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developed fully for their real survival purpose which is always found in the future. "Chance" allows the things an organism needs to survive to exist before it needs them, but this is not really a "chance" process. "Chance" is simply a word we place on things we do not understand yet.

---Sheldrake's "Formative Causation", Tipler's "Anthropic Cosmology", De Chardin's "Omega Point", Wilson's "consilience" are aspects of the same thing—the event-directing force of future coherence and unity—future consciousness. These are like "Karma" in the universe—themes echoing through unity.

---The universe starts out like Bishop Berkley's "tree falling alone in a forest" making no "noise", but develops its "sound" in the unity and awareness of consciousness later—which refers back with the help of telescopes, etc. In this sense, religions AND science were both roughly right about the disparity in it's origin date—depending on which end you look from or aspect of building unity you emphasize.

--- The universe before life was like the rigid trunk of a treemechanical and relatively inflexible in natural law and possibility. With life, it acquired a certain flexibility and mobility, branches-which will culminate in ultimate unity like a star at the top of the tree of life. The "World Tree" or "Yggadrisil" of ancient northern European religion captures the essence of this pattern. The roots in dark infinite possibility culminate in a rigid structure which brings possibility and flexibility again in the flexible, light-absorbing branches. The branches rise up and then weave downward back into the roots again outside the trunk and spatial realm of the tree. This reflects the pattern in the diamond diagram also, and reflects the patterns in our individual consciousness and lives too. All religious symbols have something to do with this pattern. The grand patterns of these symbols tie together information from vast areas of life-they become centers of meaning in themselves, symbols for consciousness. They become more numinous and compelling to our own consciousness and emotional perceptions because they echo consciousness in this pattern.

--Benoit Mandelbrot was impressed by the strong attraction fractal patterns had for people. He saw them as mathematical curiosities arising from relatively simple iterations of equations. What motivates and attracts people to these fractal patterns is the meaning embedded in

the repeating forms found within them—just like in the religious symbols referred to in the preceding paragraph. There is truth in that, which binds things together. In the methodology of discerning

patterns in modern abstract art outlined early on in the first chapter of this book, we see an echo of what this theory does. What was previously random has a pattern to it. If we analyze the details of the patterns across time we can accurately predict who the artist was, or the school of art the painting came from. When we analyze the meaning in our lives, we see events organizing around our consciousness and our purposes. We see unity at work. When we analyze the patterns of the entire universe, we see an author there too in the ultimate unity which everything is organized by.

--Our minds tend to fall into niches, just like animals fell into niches in nature and for much the same reasons. We recapitulate this struggle in our own lives, and if we keep moving forward will become gods over our world eventually as we become one with the "unified creator of all existence" in this overarching transcendent principle of nature. This requires ability, both intelligence and mental mobility. Most of all, it requires a transcendant motivation which was previously the province of religions and spirituality. These were the pre-existing cognitive traits in our new abstract-thought-environment, invisible struggle of higher life which we are now able to apply to these higher things. This is the ultimate exaptation of a prior motivational propensity rather than a physical feature like feathers. We will take flight into invisible realms of infinite possibility with these wings.

--The brain and language could not exist if there was not an actual logos-echo quality to the universe. Patterns repeating allowed a subset of the entire universe to reflect and operate according to the basic principles of the entire universe, to understand the universe. Just as we use different words for different concatenations of things with different meanings, the universe has a similar pattern. That is how we are able to deal with the information at all. We cannot (like current computers) remember every little thing that happens, or the position of every "bit". We can however simplify the behavior of collections of these things into patterns. The equations at the root of the pictorial representations of the Mandelbrot set are an excellent example of a greatly simplified idea about a reality that allows understanding. If you get enough of these simplified ideas for understanding, enough of these unities together, you can find the key which unlocks them all because you will see that they all are related. You will see that they are related because we and our minds would not be here if they were not.

--Our experienced consciousness is a prototype developing to meet the invisible greater unity we find in the universe. In the "New Hope Diamond of the Universe" diagram, we see all of the elements necessary to explain everything about the development of the universe and life. These are also the concepts necessary for understanding our unspoken motivations, and the individual need for personal space or "empowerment" to do those unspoken and non-understandable things (in the social or practical context) in our hearts on which all of civilization depends. Each person has a separate valuable part to play in this grand design, and they must be free to play it. Some of us do things that no one else can understand, and which the social structure condemns, but we must be free to do them. We must be free to follow truth, and this theory is the keys to the vehicle with the engine that will get us there.

--The brain works to give rise to consciousness, and consciousness affects the brain in a cycle or great loop like that which gave rise to the universe. The question of how the immaterial consciousness can affect the physical brain arises simply because we do not understand our own misperceptions of physical reality. We have left out certain timetranscending probability-manipulating creative forces in the universe. That is the same as what our consciousness does in the brain to give rise to our cycling thoughts. For example, our building consciousness gives rise to our preceding brain activity, in this view.

DISCUSSION:

These key points, and many others in the same vein, are portals through which we can see the universal coherence offered by this theory. You have already seen that this truly is a theory of everything, but there is much to be done. We have embarked on a path to a new science which will be able to tell us exactly how this relates to everything. The glial cells in the brain are an example of this. Over the last 10 years or so, I have periodically come across articles, or old friends have e-mailed me about articles, about studies which have supported theories which I had told them years ago about the glial cells, etc. The reason this happens is because I have made my mind work like reality, or at least this larger reality. This theory is powerful in that it is like a giant 3-D periodic table of the elements of truth. You can predict what truth will look like and where we will find it with this model better than any other that came before. Certainly

chemistry, religion, or physics could not predict these glial-cell functions and dynamics. Even neuroscience, with its action-potential, computer-like models of mental processes cannot "see" the true function of the neurons because it is limited by its evolutionary origin too-just as we are in our view of the world in general. We have been projecting our limited view from evolution onto the brain. It is time for the unseeing, echolocating, night-flying "bat" (our past selves) to look through the telescope—the telescope with a mirror in it, so to speak-because we will also be looking at ourselves. As I said with this analogy in a previous chapter, thank "God" we are more flexible and able to learn than a bat. It is time for exaptation of our latent abilities used previously for some comparatively paltry purpose. In the brain, we should be able to see the basis for this transparent unity we call consciousness, or the logos echo of the universe. We cannot project our practical time-constrained everyday view onto the workings of the brain tissue. A computer is a false idol of an incomplete world view. It is a machine, an equation operating in the linearcausal mode. This new model of the workings of unity and time-transcendence will finally allow us to understand the workings of the brain. We will see the invisible overall patterns in which the brain is engaged, that allows it to participate in this larger organizational process of the universe. With this model of the universe, we will begin to see patterns which will energize our science.

Data related to underlying mechanisms for these phenomena exists in many areas. In brain science we have the glial cells, consciousness, the elusive "retrograde messenger" problem, etc. In the mechanics of language and symbol we see maps or reflections of the nature of these mechanisms. The logos echo is a manifestation of this quality of the universe. A lot of these sources of data use our technologies to augment our senses in order to see them. The best and most intriguing ideas and evidence for actual underlying mechanisms comes from physics, however. In the universe there must be a counterpart in physics which the brain and its operations reflects. As I said before, it is certainly not necessary for us to be equipped with the sensory apparatus to perceive things about the universe which our brains might utilize internally in their operation. That is part of the paradox, and inordinate promise, of doing brain science. We see this relatively simply in the patterns of physics we have followed for millions of years completely oblivious until Newton consciously defined them. Our bodies functioned according to the structure of some mystery molecule until it was discovered by Crick and Koch-for which they won the Nobel prize. This is no different, just more hidden and maybe requiring greater utilization of our total knowledge in order to fully see it. We have seen glimmers of problems in some paradoxical situations in certain physics experiments. The famous Two-slit experiment (and it's variations) which shows some sort of unsettling connection between things transcending the boundaries of time and space as we know them is one excellent example. Another is found in ideas of the "Mirror Universe" which I found a few months ago from some researchers in Russia (Borissova and Rabounski, 2001; Rabounski and Borissova 2001). Here is an excerpt from a description of their research that

sounds uncannily like the exact mechanism that would be required by these other constraints and phenomena such as the role of glial cells as "beyond time" already listed:

The study was completed by 1997 to reveal that aside for massbearing and massless (light-like) particles, those of a third kind may exist. Their trajectories lay beyond regular space-time of general relativity. For a regular observer the trajectories are of zero four-dimensional length and zero three-dimensional observable length. Besides, along these trajectories interval of observable time is also zero. Mathematically, that means such particles inhabit fully degenerated space-time with non-Riemannian geometry. We called such space "zero–space" and such particles--"zero-particles".

For a regular observer their motion in zero-space is instant, i.e. zero-particles are carriers of long-range action. Through possible interaction with our world's mass-bearing or massless particles zero-particles may instantly transmit signals to any point in our three-dimensional space.

Considering zero-particles in the frames of the wave-particle concept we obtained that for a regular observer they are standing waves and the whole zero-space is a system of standing waves (zero-particles), i.e. a standing-light hologram. This result links with "stop of light" experiment (Harvard Astronomical Observatory, January 2001).

Using methods of physical observable values we also showed that in basic four-dimensional space-time a mirror world may exist, where coordinate time has reverse flow in respect to regular observers time.

This was pretty stunning stuff to find considering all the things I had been writing this book about. Especially interesting was the combination of instant motion, instant transmission of signals, a standing wave hologram, and a mirror-world where time is exactly reversed. Holograms, when broken, reflect the whole in every piece, just as the universe reflects the whole pattern in the logos echo of its parts. This description does not just sound sort of like an explanation of some sort of a related mechanism, it fits perfectly the kind of mechanism needed according to these ideas—yet the researchers had no idea about these other things. In these kinds of results and diverse data from many different fields we can see the coming together of all abstract thought through time onto this theory. We can see an explanation of meaning, and the direction of meaning by this path of creation the universe is on. We can see how these

ideas can touch on all history, evolution, and knowledge—adding a new beyond-time or backward-in-time component which is the source of all symbols and meaning.

With this model, we will see the behavioral significance of commerce and the meaning and power of advertising—which is like religion in that it needs symbols which have meaning as a nexus of unseen motivations for people. Meanings always come from the future, a trajectory built on our past knowledge. The behavioral significance in things comes from their meaning. We will understand what builds a civilization, and see that what motivates builders is not "greed" or exploitation of some theoretical "proletariat" in the communist conception for example, but the unity and flow of information towards ultimate power and peace since the beginning of time. The blossoming of higher consciousness. We used to use money with intrinsic worth (gold), but now instead of gold we use a facade—an appearance without real meaning or intrinsic value. Even though this important aspect (gold) of the meaning of our money has been removed, money is a symbol and a vote (we "vote" with our dollars for successful products, for example) that you are building or making something correctly when it flows toward your product or company because of the seen and unseen motivations of the people. It is an imperfect symbol and a dangerous false idol if we seek survival for its own sake, or do not understand this greater pattern. It can drive us to our doom (as if we flew into the sun) as well. The only sun we can or must fly into is the reality of the invisible sun in this unity of meaning descending upon us like the spirit of the creator descended upon Christ at the river with John the Baptist-to put it bluntly in religious terminology. As Henry Ford said, he was not in the business of making mechanical devices, he was in the business of facilitating the mobility of people and increasing the quality of their lives. In advertising schools, they teach students to sell people solutions, not products, which is effective because these ultimate patterns and purposes drive behavior. Advertising allows communication and organization of meaning in a way that is always changing and reflecting the consciousness of the civilization. There are certain things that need to be done for the future, to live, and successful products address these needs. The most successful products reflect the basic nature of reality in that they have both a practical and a meaning component-as in designer jeans and stylish cars. The root value of gold and diamonds came almost exclusively from their meaning first, before modern science and technology began to use these things for more practical uses. Numbers and letters have meanings apart from their practical uses too. All of these things are important for commerce and advertising.

The "golden spike" enshrined in national mythology from the connection of the transcontinental railroad is meaningful because of the way it echoes the overall purpose in unifying and facilitating the flow of goods and services in the building of a civilization full of possibility. It is symbolic of connecting people and things together for the building of this greater purpose. Finding the "new world" and transcending the fearful notion that the world was flat (our

♦ *The Textbook of the Universe* ♦

low-level evolutionary world view fooling us again) at the same time are also poetic metaphors for the underlying impetus of the development of life. Transcending fearful, narrow notions to find a new world. We do these same sorts of things with the invisible, abstract realms of our knowledge in a similar fashion. Life has done this in the struggle to survive. Lindbergh's flight across the ocean was very symbolic in the same sense, and so was enshrined in the public perceptions. Lindbergh's grandson Eric just re-created that historic flight recently two generations later, and the memory of that first flight is still strong in the public imagination. Steve Fosset recently circumnavigated the globe in a balloon carried only on the winds and weather (driven by the sun). He did it in record time after many highly publicized and strenuous attempts when the weather was not quite right. He was highly motivated to be successful. Where did this motivation come from? We built rockets that left this world and put men on the moon-a phenomenal symbol of the power of finding unity in knowledge. The moon is a powerful symbol that physically reflects the sun at night and drives the tides of the ocean with its gravity. We used the technology of the German rocket scientists to reach another world for the first time. The breathtaking new perspective of the Earth as just a small blue marble perched precariously in space was captured in spectacular photographs. We rose so high above the earth, that we were able to see the entire Earth in context for the first time in history. Perhaps the greatest symbol of transcendence ever devised, as well as a staggering achievement of science. This was symbolic of the giant leap the unity of our knowledge is taking now in the translation of the symbols which reflect the invisible sun into our otherwise utterly dark world. When we cannot see the sun, we can be guided by the moonlight and starlight of these things. Since the beginning of life, the moon has also been there. Ancient peoples wondered at it, and the animals grew beneath it. We are the only ones to understand it. With this new transcendent ability of space travel, we placed reflective communication satellites in orbit which reflected information from any part of the Earth to any other part. Now that the world is connected up with television, phones, and the internet, we can all share in these sorts of symbolic events which reflect our ever-increasing transcendence and our glorious future. We vicariously enjoy seeing these feats and share in them intimately-both in the building of the civilization which gives rise to them and in the common emotions we feel with those engaging in these things. We see life coming to a head and working its wonders in the world. It is all coming together. The Earth is the shrine of unity, the cathedral of a God who is coming to earth in us.

We will get to a point with these ideas where we will truly be able to understand or solve any problem. We will be able to write programs or change the architecture of computers to allow them to amass and deal with information better as a result of this knowledge. We will be able to understand how the brain works and the universe as well. The information in brains does not exist in the format we currently think it does. One correlation to conscious activity noted in the brain by various researchers mentioned in the chapter on glial cells is the fact of 40hz neural synchrony across neural groups involved in

consciousness. The dynamics of this process, and the coordination and control of our conscious perceptions, most likely require the actions of glial cells in the brain. The glial cells here would be the factor operating beyond time and space. Because of this theory and knowledge of the basis for existence and symbols, and our understanding of these things with brains, the glial cells look like the most likely candidates for the substrate of this process. Back in 1988, when I was deeply in thought about neuroscience issues, I bought an issue of Scientific American which had an article on glial cells. I remember vividly the impact that article had on me. From what I knew at the time-with my experiences with computers and neuroscience-I was beginning to think something was wrong with our view of how the brain worked. The drawing in that article of an astrocyte hit me with emotional force and I knew I had found a key to the brain. I have been writing about them ever since. It was like a religious experience the picture took on a numinous quality. We should not discount these experiences, and I did not. It was the future I felt then. This book is the exaptation into a greater whole of those and many other experiences. This idea built itself into me toward larger ideas that are only now becoming clear. When we all discover how these things work, we will be on a new level of possibility in civilization.

In almost every area of inquiry existing, these ideas are helpful. The seeds of these ideas planted in your experiential or educational development would automatically tend to grow and work themselves into whatever field you were in because they would offer so much in the way of accelerating knowledge and success in understanding things. For example, I have been to a seemingly unrelated workshop on lucid dreaming given by Stephen Laberge at Tucson 2002, and before that in 2000 I talked with a scientist from Austria (Holtzinger, 1991) about the parietal lobes as being active in lucid dreaming experiences. In both cases, there was a lot of relevant information, and dreaming in general seems to be much more understandable via these theories. The parietal lobes are involved in high-level reading comprehension-a highly symbolic activity involving a working knowledge of meaning behind the words themselves. In lucid dreaming, you have the introduction of knowledge that you are dreaming which allows manipulation of the dream. You in essence become a writer of the symbols of the dream. In order for there to be lucidity, you need to be aware of signs and patterns in the dream that indicate it is a dream (LaBerge and Rheingold, 1990). Everything in the dream is organized around you, and sometimes around your biological needs too, so knowing yourself is an asset. There are tricks you can do like pinching yourself —which you don't feel in the dream. Anyway, the objects and scenarios in dreams tend to be generated by meanings leading to specifics-which is why dreams are so hauntingly symbolic and considered holy, etc. in some cultures. It is as if the unity factor of the brain, the logos echo part, gets to play with the distillations it has made without the detailed specifics of daily life and biological necessity getting in the way via the sensory input. We are free to evolve and progress with our perceptions of meaning in dreams where these sorts of things are less

threatening because we do not actually die from events there. We learn about the dynamics of meaning from the models of meaning we construct there. Emotions are distillations and unities-theories which, in the context of evolution, tell us things about ourselves and our world. Emotions have a rationality to them (DeSousa, 1987) Emotion drives thought, and is a distillation that we feel as a theme or compulsion to think or act. There is emotional content to dreams which colors our consciousness of them, and is part of their meaning. When we see the patterns organized by consciousness in our waking lives, they are somewhat dream-like in the sense that they are symbolic and emotional apart from the specifics of the events. They are meaning-only organizations with the other practical, causal explanations as ways that this meaning can happen as a sort of physical dream-imagery. That is why these introspective experiences are somewhat like dream imagery. Dreams may be a forum in which we can practice and learn these things until we are able to do them well--since they would interfere with everyday tasks and social constraints somewhat during our development. As we become "Ubermensch", "enlightened", or "sons of God", our minds may become plugged into reality in this new way more and more as we approach the omega point of ultimate union with the life force in the unity we have called "God". It is interesting that in the brain we see the parietal lobes active when a dream becomes lucid. At that point, the "god" of the dream descends, and the logos of the dream becomes "flesh" in the dream. We are able to coordinate and change the symbols. In our lives, creativity involves a similar comprehension and manipulation of the symbols by which we interpret the larger external reality. We slowly realize over our development that we are co-existent with the driving force of the universe inside of us. This is what is referred to as our "soul" in religion. We also have this God component in us since we developed in this universe. When we have advanced enough, both genetically and experientially, we begin to see and exercise that component. In the development of life on Earth, humans are marked by an increasing awareness of the divine component and affinity inside of us. In dreams, it is also available, and we work out problems threats, and fears in this forum before they can affect us in reality and destroy us by setting up a "karmic" cycle with our creative mind. This is an obscure area of investigation, but one which might now be couched in actual testable hypotheses about the world, and so makes a good example here for the power of this theory. The point here is that whether you are interested in these particular dream phenomena or not, you can see how this theory can dispell confusion in even this obscure corner of science. With a little effort, this key set of ideas can help in any area of inquiry—such as in the understanding of the attraction and symbolism of great stories, or movies covered later in the discussion.

The various media of print, film, television, radio, music, and the internet are a large factor in our lives. Successful movies, like successful products, advertising campaigns, or politicians, reflect deep aspirations, desires, feelings, and patterns in the general population. These deep things tend to exist as diffuse

emotional tendencies-distillations from our genetic endowment. These deep things are also distilled from what we have seen and learned around us as symbols and generalizations of these underlying genetic patterns. Great movies "touch" us inside, and align with or echo our dreams-whether good or bad dreams. A movie is also safe like a dream, even though it may deal with lethal subjects. Even though they are not real, we learn from them. The ancient Greeks had theatres and plays as part of civilization. At some level they knew these things. We have many kinds of movies to choose from, and even though they may be in totally different formats or genre, we can follow our own development, our own dreams and paths to find our highest truth. We need individual freedom to follow higher truth-ideally with the help of power structures. We need separation of church and state, but not necessarily the separation of the object of all religions and state-because they both serve the same ultimate purpose. This is the true purpose of political structures—to help us on the path to transcendence, to truth. Decision making, responsibility, and a constant searching for new knowledge and new perspectives are an antidote to the cognitive social diseases of mankind. People who think must be allowed to decide for themselves. Humanity can currently be defined as insane (or maladaptive) by reference to the greater invisible patterns which led to its advance and adaptability in the past. We have fallen off the path somewhat with many of the notions of modern society. We need to take up the slack and pull ourselves back onto the path. We need those motivated by truth to save us from our turning away from knowledge. When we have whole knowledge, it is easy to see the patterns of destruction. In movies, we see this in parts of truth sort of twisted in their sockets to face the other direction—diffusing and diverting our energies and thoughts down destructive paths, like elements switched around within the periodic table. If we are not wary, we can blow ourselves up or poison ourselves with this wrong information as the alchemists did at times. Destructive karmic cycles are begun by these twisted elements of truth in those who would otherwise become as God in their transcendence. These are buried "mines" that trap and kill the unwary wishing to advance. Whole knowledge lets us see these destructive aspects immediately, and we separate and reorganize these things instantly in our minds to mine the gold and leave the imperfection to dissipate as if it were just a bad dream... With whole knowledge, we can turn lead into gold-the perennial dream of the alchemist. When individuals see their own minds at work and realize their own importance in shaping the behavior of others, and our world, etc. they can no longer get away with rationalizing their behaviors of destruction and ignorance of the processes of the universe as just another drop in a bucket, or as a symptom of the times and the larger world. The proliferation of imperfection is purely destructive to those who seek truth and perfection in knowledge. Flaws in the loop build in the wrong directions and destroy. It is OK to tolerate mistakes in children, but adults must strive for perfection mercilessly. We shape the future and we are the reason for the existence and struggles of our ancestors. We must

work against the rigor-mortis of tyranny and death in our minds first, and then this will be reflected in the world we are building.

An example which will serve as the focus of why freedom of action, thought and inquiry is so valuable to us all will clarify the problems that I have discussed. In business circles the word used is "empowerment" which is another way of saying "give more freedom and control of decisions and risks to employees, and give them responsibility. Give them their brains back". A common example could be a waiter in a restaurant. The waiter notices that people at one table are thirsty and asked for water. People at a second table seem to be in a hurry. The people at the third table in his section are deep in conversation and have been eating slowly, if at all. The waiter is using his or her brain to discern these things and provide the best service. He takes pride in the work and it is engaging for him to decide which tables to visit first and how often to carry water on the rounds, etc. He learns with every day that goes by. He learns how to pick up patterns and how to get the best tips and the most satisfaction. He develops theories. He enjoys his job and the people like him. He is an important part of the exchange of ideas and resources that allow civilizations to work and grow for all of us. He does his job so well that people say he's the "psychic" waiter. He is polite to his co-workers. However, the new manager is insecure and has learned of a "system" for the waiters to follow. He wants the waiters to follow the results of his training and experience--which is a regimented pattern of table visits which conserves motion and effort. He tells the waiter he must follow the rules of behavior he has delineated. he has "objective measures" based on numbers, averages, and timing of table visits. All the joy is taken out of the task for the waiters, and the increasing stress on the manager is ruining his health. The only people who do well now are those who do not think, but rather take on the views of others. They become parrots motivated by approval and competition. An end to thinking. Slavery of the thinking mind. A prisoner of the micro-culture of the restaurant. Individual decision-making is necessary for thinking, and for the unseen transcendent patterns of a civilization to work properly. We must have intelligent, independent, even heroic minds for civilization to work and grow. A culture of freedom is only important because of what it demands of, and protects of, the mind. It is a key of liberation as well as taskmaster of the mind toward greater development and involvement in society. Accepting true freedom is saying no to the most powerful of drugs. The entire bill of rights is a prescription for the saving of "souls", or the eternal within each of our lives, and the freeing of minds first and foremost. The freeing of minds to follow a delicate vision of the future, and to let natural consequences do their work. It is permission to be an adult, to really live your own life, to know your own importance--permission for humanity to have a future.

Follow this simple restaurant & waiter analogy to whole human cultures, and to science and education. Think of tyrants and dictators. The people in power are more likely not to be the best suited to what they do. Although even this is not always so, it is a strong and inevitable tendency when people are blind.

Think of the importance of freedom, and the risks involved, for human kind. Safety is for children. Think of how freedom promotes peace and well-being on earth. How it promotes thinking. Think of how development from childhood to a true adult is a process of becoming more and more free and independent and wise, and how all tyrants intimidate and keep populations in fear like children, rewarding those who follow their program, robbing people of their own motivations and souls.

These political game-masters are like soldiers of the great program of culture--which is a hulking, animalistic, false idol to real truth. These poor souls cannot see what they are really doing, however. What do we mean when we say that people have "lost their minds" if not this? This false idol culture borrows enough tidbits and forms of actual truth to keep even the greatest minds bowed to its directives at times. We naturally follow authority, but this natural tendency has been conditioned blindly to follow false things-just as our love and devotion to our children can be diverted into self-defeating forms of charity and forbearance. People can "make a deal" with the great artificial being of cultural patterns in exchange for pleasure or power, and become walking and talking robots in the service of it-even though it is destructive of our collective future in the long run. Political pressures compromise our ability to see or express our knowledge. Cultures that lie and do not follow truths are destruction engines, not paths to a greater future. Culture must follow and reflect the truths of our greater future and aspirations. Truth-seekers, truthlovers, and truth-makers must be at the helm-not lies, stupidity, and cowardice. If we cannot see and cannot recognize greater truths, we may even go to war with other nations that actually have more truth, or have complimentary truths which could have been forged into something greater. We must have leaders who know and value truth above all. We must have these kinds of people in our schools, in our media, and in our elected offices. These artificial and destructive principles of cultures find their echo in our stories-like the Terminator (Cinema 84, 1984) movie with the computer intelligence "Skynet" an artificial, animated, computer machine built to protect us that destroys and enslaves first individual humans, and then the world by launching nuclear wars for its own ends. Also take for example the "Death Star" artificial world in the Star Wars (20th Century Fox, 1977) movies that destroys real worlds for political ends--complete with Darth Vader who could not live without his artificial machine mask. Intelligence, like science, can be used for the greatest good or the greatest evils. These symbolize artificial worlds constructed for base political ends. The best example is probably the paranoid computer "HAL" in 2001 A Space Odyssey (Turner Entertainment Co., 1968). If we do not remove the power of this soulless machine from our past purposes, we will have no future. We must become ascendant over it. Even though culture operates on a grand scale, the dynamics of individual minds are always responsible for it--like the molecular reactions we don't see that give rise to a visible reaction or phase change in chemistry.

Think of those who are hollow people, parrots, whose lives have been collected and removed from them by the system. People who idolize the norms of a system without question, and cannot imagine anything different. Where do their motives come from? Who do they serve? Their lights are on and nobody is home. Perhaps our sciences will help us to reverse this state of affairs. Brain science demands that we make fundamental adjustments to our very modes of thought and education in order to be free enough to see truth. Brain science is looking into the most personal of mirrors. This can be very threatening or painful to some. Brain science demands a willingness to sacrifice, demands freedom. Our educational systems are a major roadblock, and our methodologies of teaching are inadequate. Unless we are willing to take chances, to sacrifice, to look in the mirror, we have no hope. We must acknowledge that genetics are everything—our great gifts from the creator.

Our school systems need to change to keep up with the information society. I never got along well in the current school system because I loved learning and cared little for grades. I will use some of my own experiences as examples. In first grade we had an assignment to do some writing. I changed the question on the paper and then answered the changed question. I had something to say. I remember thinking that I knew what the teacher intended, but that the question could have been better stated. He was one of the best teachers, and ended up calling my parents to ask what to do. (my mother told me this much later) Later in my tumultuous school career, I would stop taking notes in the middle of class to follow an avenue of thought provoked by some concept covered in passing. To make connections, to consolidate learning in this way was to risk failure in school. You cannot stop to think. Failure is possible simply because you actually loved learning above all. Such situations are surely admired in hell. Brown-nosing, paying attention to the teacher's emphasis and thinking, and only focusing on probable test information are the ideals. Letting your thoughts go free should be part of education--part of the natural process of consolidation of learning--tying things into your own experience. Besides these twisted motivations, and forced compliance with an inadequate system, the largest problem facing modern educational systems is the proliferation of ready-made knowledge. This explosion of knowledge has the paradoxical effect of providing stimulation and raw materials to minds, but lowering the probability of creative thinkers arising in the population by building a rigid virtual reality of complex and gargantuan proportions. Like the artificial world, or "death star", which destroyed real worlds in the StarWars (Twentieth Century Fox, 1977) movies again. This rigid, mechanical, political, inhuman theme is a general principle of brain operation in cultures as you can see. A principle out of our pasts. Ideas are powerful tools which can be used for both good and bad ends.

Paradoxically, our educational system automatically trains our brains not to think, and then we are fed extremely damaging false information about how people are all the same, all equal. Equality in opportunity and freedom and in the eyes of the law is one thing—that is how equality was meant in the

constitution. It has become a social offense of sorts just to be smarter than other people in front of them. Since people are sold the utter fantasy that we are "equal", truly smart people who think threaten the whole world view of our new twisted culture-as Copernicus, Galileo, or Bruno did at one time. This is a problem that runs throughout our modern culture in many areas besides education. We don't even know what thinking is any more. Microwave ovens and fast food have decreased the old, from-scratch, cooking of the past even though ingredients and recipes are much more abundant and available. Even the proliferation of recipes themselves have led people to forget that someone once experimented and wrote down a combination of ingredients they liked. People go to hardware stores to buy ready made items or replacement parts, not to peruse raw materials, knowing their properties, in order to make something new, or come up with ideas. In order to be able to make something truly new, we need to build our models of the world in our minds from the atoms up-we need a feeling for the way things work. There is a saying in industry: "why invent it twice?". We must re-invent everything that was invented within our own minds to truly understand things fully. Without recapitulation of the mental evolution of mankind, we do not progress. We need roots along with a superlative understanding. We are not "books" to be filled up with the ideas of others, we must make the knowledge ours-and tie it into our own worldview. One good reason to invent it twice is so that we can keep improving on things to eventually reach the goal of life in godhood. That's a pretty good reason to "invent it twice". Plato's problem of written language ending thinking is now only one aspect of a vast complex of rigidifying forces and well-trodden paths in society. We no longer think, but we "think" we do, because of the complex array of patterns we have at our disposal. We have lost the ability to discern when these patterns might be wrong because they are not living and breathing-they need the breath of fire of the creative intellect. We have lost the motivation to see working wholes. We must accept that a precious few are able to see these things.

Life is a river, a never-ending journey of thinking and discovering, not thirtyminute disconnected, static puddles of subjects to be shallowly splashed through. Some of the larger questions can take lifetimes of thinking to prepare a mind to deal with them adequately. Real questions cannot be raised in a classroom. If a person truly loves learning, school is just a source of snacks for their appetite for knowledge, a source of stimulation. It is really up to the student to do the consolidating, relating, and questioning that are the hallmark of a real education. This takes deep motivation toward truth. The best education motivates students to learn by triggering their natural curiosity. Thinking brains are not set up to learn according to an eight hour schedule. School should not be a place we go to learn to dislike our natural learning and thinking abilities. Education is all about personal benefits, not monetary reward and jobs—those things are secondary. We cannot be harmonious if our knowledge is rigid instead of flowing and creative and infinitely adjustable. We are not all equal, and we need to increase the numbers of those who can think and are motivated

by truth in our society now more than ever. The charade of equality is killing us. The intelligence level of our country is actually dropping every year—not to mention our much more important motivation for truth. This is the rot that signals the death of the tree. Our civilization is dying. We are all paying attention to the material façade, while behind it all the true power and origins of our civilization are being rotted out by the unscrupulous, deluded, small-minded, the perpetrators of lies, and the power-hungry. Genes give us a future—they sustain our vision and motives.

The first step to curing any disease is to name its nature. It takes much more courage and individuality to produce revolutionary material in this day and age than it did in the time of Newton or Einstein. The educational systems are a large inhibiting factor as a result of a number of our modern "advances" in teaching--including standardized testing. Doing well in school is gauged by learning great volumes of information at a rapid rate. Aptitude tests are timed-as if to make sure that responses are unthinking and reflexive, pre-formed. This creates a class of honor students who are indoctrinated into a vast panorama of information which must be accepted without creative thought to a great extent. Good students become centurions protecting, unknowingly, a prison hierarchy of knowledge. Then, they become the teachers and authorities for the next generation. The map of the terrain of their learned information conforms to the peaks and valleys of the thought emphasis of others, not the student's unique point of view. This is the problem. A library has vast amounts of information, but there is no meaning to information without the connection-making capacity of a human mind to give meaning to the words, to give life to the equations, to breathe fire into the world-the holy fire of a glorious future. Libraries are lifeless and meaningless by themselves. It is ironic that to make your mind full of static information like a book is the ideal of our educational system. A forced ideal--conforming your mind to existing terrain. Real questions cannot even be asked, let alone pursued, in fast-paced, and information-packed classrooms. We miss out on the tangential themes and connections behind the particulars that can keep our minds mobile and free-the things that produce meaning. We "invented" mnemonic devices--consisting of attaching things we want to learn to some coherent imagined scene because we are set up to learn more meaningful things. We are made to learn wholes! This "invention" is a symptom of our illness. That is how the world actually works-meaning is a part of how the world works as much as inertia or any other physical law. There is a reason diamonds or gold are appealing to us—they have meaning to us partly because of their beauty, but also partly because of a role they have in introducing a new future to us. Beauty, and attraction to things for the thoughtful often has something to do with the future, finds its coherence only in the future. Our attraction is a kind of foreshadowing, being led into the future by feelings, seeing a greater coherence to things-religion is the same waywe feel the future of possibilities in the beauty of religion. Cathedrals, religious icons, and church renews our faith and motivates for higher things in the face of adversity. It is a testament to how far we are from the real way things work that

in our psychology (mnemonic devices) we had to re-discover that folks learn meaningful things, interconnected things, more naturally and completely!

A question was asked on an educational children's game show I saw recently that highlights this problem. It was pointed out by the shows host that Democritus, an ancient Greek philosopher, thought that the world was made up of small building blocks which we now have seen and named today. The multiple-choice question was, "what are these building blocks? Atoms, cells, or bacteria?". It seems to me that cells, atoms, or bacteria are all excellent answers-all true at some level. Since our brains are made of cells and are the organ of all we know, cells really are the basic building blocks of all we know. Actually, at least one point of view in biology holds that even our brains were once chemically-communicating bacteria that slowly got together--developing into the overall pattern of neurotransmitter-communicating networks of the body and brain. So which answer is right? Which answer the most intelligent? The answer chosen as "right" by the show was the answer I would have considered least intelligent-"atoms". Everyone "knows" that. To do something with knowledge should be the highest aspiration. There is no natural reason for brains to know detached "facts", just as there are no "spots" in the brain for particular functions. Knowledge builds via the logos echo property with analogy, metaphor, and allegory and the brain works this way too. After years of learning and experiencing according to what interests you, if you love truth, you will begin to see reality as it is.

Standardized tests have always seemed confusing to me because I am not sure what answer the test makers would see as the most "intelligent". Although "atoms" is the "correct" answer in the above example, in a way the answer "cells" is more creative and thoughtful, and bacteria is even more so. All of the answers are actually just different points of view. Different dimensions of truth. It is a shame that we count atoms as the "correct" answer and evidence of what we call "smart". The world is not sliced up into the neat packages we would like. We do not all think alike. My world is not your world. You cannot expect standardized tests to be the measure of man, and you cannot expect everyone to take on the same twisted world view-that is tyranny, not freedom. The idea of equality is a tyranny that hurts us all in the long run. We hold standardized tests in much too high esteem. Truth is all points of view at once. All three answers at once. We should not make such efforts to shape our children's minds into narrow points of view, and to reward and punish them to not use their brains. In my theory of the brain and consciousness presented here, the future actually affects the brains of the past and what they want to do. The future drives the development of the entire universe. We should not try to impose the rigormortis of a selfish or manipulative world view onto those who were meant to guide us into the future, no matter how threatening or hard to live with we perceive these people as. Those very sensitive to the future hold a different kind of intelligence, one that sees signs of an immanent future from the overall patterns of a civilization. They listen to what religions call God. For similar reasons, we value diamonds and gold-we see our future in them, they were

selected out of infinite probability for us-that is why we see value in these things in civilizations and animals do not. They are information for us, with a haunting intelligibility. My thinking, and my theory, has everything to do with the future, with life. I have allowed the future to take root in my mind rather than the static animal past. The future is where we reach higher consciousness, where knowledge comes together into a critical mass that BECOMES the engine of creation itself. That is where consciousness comes from and where our quest for knowledge is taking us. Animals do not see any value in diamonds or gold for a reason-they also do not build airplanes, spaceships, computers, or religions. Intelligence and creativity are not what they seem. The legends of "Viracocha" (Rohmer, 1976), the "creator God" of central American Indians who taught them their culture and how to make civilization, were not just myths, but a foreshadowing of where life itself is headed—an apprehension of the future of life, whether or not the pale-skinned, blue-eyed stranger they spoke of actually existed then or not. There is mounting evidence that he did, however-such as the 11,000 year old Caucasian bones found near Mexico City). It is not coincidence that advanced civilizations have landed men on the moon recently. Several hundred years ago they would have realized what a magical miracle this was and is today. Egyptians built pyramids too, looking metaphorically like hierarchies in the animal world, in the universe, and in our minds, because they could see the future echoing into the past too. Their kings were buried with their gold and things for the afterlife-the future they could see in the trajectories of knowledge and life on earth towards a time when we meet the infinite. Everything takes on a higher meaning, and we see that even the shapes of animals are not random, but reflect this quality of the world just like diamonds and veins of gold underground do. Creativity comes from knowledge, increasing consciousness, increasing increasing meaning, increasing unity, until we become one with that unity, and ultimate meaning, that runs through all the forms in the universe. Like the theory of evolution, only extended from the start of the universe until far past us into the future and including the "non-living" shapes of things, this theory has vast amounts of evidence and support literally everywhere. How can a standardized test based on an outmoded and limited world view measure this factor which is our future come knocking? Just because something is not practical now does not mean the future will not require it of us.

In the modern educational system, in defense of the unthinking tyranny of machine-gun ideas, teachers as well as students can feel very insecure. The information is overwhelming and they can just barely keep their heads above water. In the back of many teachers minds, there is a doubt (hopefully) that the standardized test results and their educational achievements have left something out. They feel frustrated. The children aren't motivated to learn in many cases. They are right. We are trying to use one method and set of ideas to teach everyone. These methods intimidate and imprison creative minds, or those who think in eccentric ways, and yet we try to "help" these students to do "better"---to sacrifice everything that is best about their minds. The probability of survival

in the system is decreased for those who think differently in proportion to the uniqueness of their thought, and in proportion to the strength of their desire to hold on to this jewel of human struggle and evolution. There is an ultimate mnemonic device, an ultimate theory and coherence to things, which could solve these problems. I have been there and seen it by following my heart. I have seen the future in these patterns now. Many are rising in this direction, and they must be allowed to rise in spite of the popular medias policies and politics on these related matters (such as genetics, IQ, the differences between races, etc.) which have become tooled into and ingrained in us as a great barrier to acknowledging these larger truths and patterns of our future. It is as though I am an alien of your future-the first man of the future to see the patterns of a new age. It is a place I want to emigrate to, even as hordes of other peoples want to emigrate to the US as an echo of this larger pattern. Our civilization has the power and genetic capacity and technology to do this for the first time ever. This is the ship to the place of our dreams. The dreams of other peoples wanting to immigrate to the US must not replace our larger dreams. What they want is where we are now, yet what we want is the much greater future that the now is only preparing. The future that the advanced "now" comes from. My life has taken on new coherence in retrospect, the conflicts and concerns of my youth have been thrown into relief: I have been fighting the destruction of humanity since I was conceived. I do not seem to have any other core to my personality than this-a warrior of life.

Creativity and eccentricity based on truth are the most valuable commodities for any civilization-like the farmer who had a perception of meaning, a metaphor of rows in a field, and invented television which sows rows of phosphors with an electron beam. The future affects the past in the logos echo property combined with our motivations. Thoughts affect materiality because that is part of how materiality comes into being. These creativities, reading of meanings and metaphors are important for the adaptability and future growth of any civilization. These things have a large genetic component. Freedom is most important for those who are different, who have vision--to keep society open and dynamic. It is just common sense that you don't bury or destroy a gold mine. The hand of the future reaches back into these people to prepare the way for life. That hand is what religions have called God—master of the coherence and force of progress in life out of the void. The sorts of people that the twisted aspect of our whole educational system truly discriminates against are those who drive the growth and adaptability of civilizations, whether we are aware of it or not. We must throw off this death shroud, we must learn to refine, not bury this treasure like a pirate. Pirates have a role to play in Gods plan but they will never be allowed to take over, just as life has met challenges all along the way in getting to where we are nowhuman or otherwise. It is interesting that some factor or thing always plays the adversary, no matter how advanced we become-which serves to drive us onto higher levels every time... This role of adversary, figurehead and foreshadowing of destruction, seems to exist because the possibility of the end

of us exists. These adversaries play a part by foreshadowing our actual demise in proportion to the possibility of it in the future. They seem to be the living probability that we are going to kill ourselves off-emphasized by the skull and crossbones flag in the relatively innocuous case of the pirate. Much worse is the hidden factors, those who do not have our best interests at heart, or who actively work for our demise whether knowingly or not, in unseen ways. Greed and power politics behind the facade of honor and trust for example. We can control these things, and eventually eliminate the probabilities that we will die off simply by facing and embracing truth. It is a crime to stunt the growth of creativity when it is such a delicate treasure to be nurtured and encouraged, and so life-giving. We are also compromising the future survival of humanity. Just like anything else in life (when it is practiced from an early age) you will excel in thinking as you gain more experience. We place gold into vaults, and guard it with armies (Fort Knox) yet the gold in our vaults is only a stage prop for the real gold contained in the creativity of these people-the most valuable thing on this earth. These people are the source of life-their souls are life. The life force itself is in them-the way to the future. We must adopt this real gold standard.

Instead of achieving this creative excellence, by the time you reach an age and a level of knowledge to change things, the change has been driven out of you and the rigor-mortis of the current educational system has set in. Since you only live in your own body, you do not have another way of thinking to compare to. You are totally unaware of what is wrong-just as a bull runs at a red sheet because of its world view, and a stickleback fish vigorously attacks a red ping-pong ball. Part of the problem is that our students do not widely have the genetics necessary to appreciate these things properly. We can definitely fix that, as well as fix the educational system. We can find incentives and other ways to increase those with these abilities. The first step is to see these problems. First, the educational system makes the abilities of creativity weak and atrophied. Second, the uniformity and political rigidity of those holding the power over ideas (who are the most successful in this kind of system) is strengthened. You are weakened and the task is made harder. You have been trained to imprison your mind in a lockdown of ideas. You have career goals and bills as your only light at the end of the educational tunnel. A degree from this training will get you a job, and prestige and other hollow cultural awards. No consolation for losing the most important thing in your life--your mind and spirit, your soul. The future of humanity is being flushed down the drain. There are exceptions to these patterns, but they are few and far between in my experience. We owe it to the history of all life to do better. We owe it to the dream of the first life form there ever was and to the dreams of the countless generations in between. The dream of ancient (relatively speaking) civilizations is still alive in us. Mostly we owe it to the children, and to the future-the glorious future that could be and the everlasting life it promises. Parents who can adapt their own efforts directly to the needs of children on a personal level are the first and best teachers. If they do not love knowledge, they cannot teach

their kids or be an example for them. We need people motivated and able to reach truth now more than ever, yet we are taught to ignore such individual differences. With this theory, we can get an idea just how ignorant we still are even though we have come so far. The world does not work like most people think it does. In the animal world, not being aligned with truth leads to only one thing—death. We are no different. In many cases of the past, we see that just because information sounds right or even that it is widely held does not mean that it is right.

The current state of affairs is complex. It is not all a result of failures in the educational system. We all need to look into the mirror and see who we are. Without an intrinsic love of learning, there can be no true creativity or thinking. Thinking and creativity demand courage and boldness. The traits of warriors are usually separated from the traits of those who pursue occupations of the intellect. To face the harsh light of naked truth takes solitary courage and strength beyond any required on a battlefield. It takes a lifetime of sustained effort against the forces of destruction, laziness, desire, and fear. To face and battle the manifold evil and half-truths of the world takes extreme courage. These are the things that truly destroy—a lack of love of learning (truth), a lack of faith, and a lack of courage when we are "in the shadow of the valley of death" so to speak. On the road to truth are many demons and foul winds to blow you off course. Along with a warrior spirit, the sensitivity and grace usually associated with a poet or a ballerina are also necessary. These are strengths from God if anything is. True thinking involves noticing and questioning of everything while also being able to construct and combine concepts in new ways. We must be archaeologists, artists, and architects of what comes to us from our hearts, and we must also be willing to destroy that which served the wrong purposes for us, and for civilizations. We must be willing to accept truth, no matter how uncomplimentary to us or our civilization. Many learn their colors, or concepts, in school, but far fewer become great artists. The difference is in why and how they learn. Recognition of what you are supposed to answer is no measure of the greatness of the soul which is the engine and impetus of humanity. At the end of our striving and learning we will realize that God is in us. Even most of our greatest artists were never recognized while they lived and worked-they worked for the art's sake. It took the future to truly see their greatness and meaning. All recognition and competition should be for and with yourself for your own path. You must be your own master and judge. Only your own mind can think of ways to truly challenge itself, and the largest challenge of all for many is simply facing themselves, facing the truth about themselves. There is more information in your own brain to truly judge yourself, than there is in any subset of information written down out there. You just need to love the unity behind experiences, or truth above all. Much of these motivations are the responsibility of the parents--both genetically and behaviorally. Love of truth is most important. The laying down of these foundation motivations begins very early on in life. We must make efforts to uncover and increase the genetics

underlying these abilities for the future. These children need truth, freedom, and hope—these are their natural environment, the only environment which they naturally live in beyond the storm of symbols and manipulations of greed and politics. The increase of these genetic abilities and their environment will be the true exaptation of our genetic technologies which we are currently squabbling over for economic reasons. There is no getting past eugenics, we just need enough information to be able to value the right things. We have much to learn.

In order to think you must take on other points of view. You must be able to reconstruct the information in any book by asking the same types of questions that were in the mind of the person that wrote the book. If you learn enough with a concurrent love of truth, you automatically can distill out the essence of any important question. These questions in the minds of those who wrote the books should be apparent from all your past thinking and experiences. Then you must question more, relate more--let your mind flow and wander. It is natural and fearless and free. You must love the authentic process of learning which is questioning. learning conclusions or the theoretical constructs of others should be only a collection of raw material--a stack of lumber to build your dynamic house of truth. Like a handyman walking through a hardware store thinking of problems previously encountered. Getting the feel of what is available and thinking of problems or challenges he is likely to encounter. There now is some metal to be drilled and shaped. Here is a bracket that could be modified and adapted to brace that rickety old stairway to make it new again. The handyman that does this certainly loves his work. His principles and thoughts are a personal challenge and source of joy. He is not competing with anyone (except in their minds projected onto him). He loves learning and experimenting-truth above all. That analogy is an echo of what the process of creation has done in the universe and in life-operated on available possibilities. Exaptation.

Information must always follow on the heels of good questions. Children naturally ask questions--as any parent will tell you. This is the most natural way to learn for a reason. In fact, competition for approval or social prestige is not an impetus for work that is in the best interest of students, or revolutionary work. It is an impetus for the tyranny of ideas. It is an impetus for strenuous advancement towards the ideals contained in the current paradigm only. Those that reach the top in this sort of system are automatically insecure in many cases because at some level they know that this is how they got there. This increases their fear, rigidity, and loathing when someone truly able to think comes along. It is a framework for promoting theft of any new ideas by those who might hold titles and no souls, a framework for politics, and misery. If people saw that we all have extremely important roles, and they stopped judging themselves by the ideals of a society, we would all be better off. Deep down inside we know if we are living right, we know if we promote truth and justice in the world and provide an environment for truth to win out. For some

people not working toward these ends, they cannot face reality. We must not be afraid of asking questions to ourselves as well as to others.

This spurious source of motivation (approval, peer pressure, prestige) is a selfish motivation and framework for "playing the game" of a particular paradigm "vending machine". Certain ways of acting and thinking, or certain clothes or cars, build status and lead to success. You figure out what is there, and learn it to get what you want and to feel comfortable. Any person who does not know this game and play it is considered a threat or an outcast, as well as quite socially obnoxious. Every day there are students and children who are worn down and beaten by the system into its relentless mold, or else we create "Unabombers" or school violence. As long as you can accept half truths, lies, and fantasy, you can get along fine. We ban religions from our schools, when it might actually be important information about the universe around us when taken as a whole. Religion is a deeply human thing. To the extent that we act like animals, the mystical experiences of beauty do not matter. It is time to wake up to the fact that this educational and cultural system is not working and needs to change. In this rapidly changing and complex world, to go to sleep at times like these when we should be increasingly alert means death. Every good thing in the world was created by some visionary, or some genius. We take on and deal in those patterns, but we do not leave space anywhere in our society where these people can live and prosper. Not only should there be ready places for them, but society needs to organize around and increase these genetic life engines as we advance. All our lives can be improved by doing this. By simply increasing intelligence levels with breeding practices, we can improve our economic picture, our survivability, and our lives (Herrnstein and Muray, 1994; Lynn and VanHanen, 2002). We can reduce violence and crime to make a society which becomes a forum for the ideas of the future instead of the playing out of the destruction of the past. We will create a support system for the life force instead of the death force of degeneration.

This motivation for advancement toward societal, paradigm, or cultural, ideals is especially strong in those people who have never learned to think outside the paradigm by questioning. They have no way of evaluating ideas and people beyond the criteria and credentials of societal indicators--such as PhDs, or clothing style. We get anorexia with the societal body image taken to the ideal extreme, and we get all sorts of other life-threatening patterns when society begins marching off to spurious ideals like egalitarianism started for selfish emotional reasons and purveyed among the blind (see Ayn Rand's books: "The Fountainhead", or "Atlas Shrugged" (1996) for excellent examples of this surface dynamic), or the ideals we see arising from multiple-choice testscores. We are given snippets of truth, and then marched down the paths of ideological schools of thought to dead ends. We put cheese in a trap, and the regular, mechanical apparatus of the trap closes down on the animal in a similar fashion. We must understand that our environment is minds and abstract concepts, and those who can think their way out of paper bags, traps, and even organized schools of thought are the most valuable people in a society. Those

who fall prey to these complex traps weave them further and further into their world view—drawing others in. These false idols have an artificial gravity (or spurious meaning) to them-like ants falling down the slopes of sand, not realizing that any activity in the trap they are in exacerbates the problem. If the trap forms a complete cone around them, even if they change direction or area of inquiry in this analogy, they still fall farther in where a predator may lie in wait to devour them. The ant follows this new pattern which the predator has made and then serves the hunger of the predator no matter what the intentions of its motions are. This force at work in nature is the destructive force which finds its way into the patterns of our minds because our minds are our environment in the modern human civilization. This is extremely dangerous now. These people concerned with surface ideals and frameworks need to become humble, in spite of their degrees, so that we can live. They have lost the ability to judge for themselves when society needs it most in this time of nuclear weapons and advanced warfare. Ideas have become bigger than them. They lost the battle of the "death star", or the battle of Jericho (this truly is an internal epic battle of this sort)--and the walls hold them still. The walls in their mind--symbolized throughout cultures like Pink Floyd's "The Wall" movie, or like the Great Wall of China, or the "iron curtain", or the town walls of feudalism in the dark ages. We must remember whose mind made all these "wall" things: the darkness in the mind of man. These are symbols of our psychology and a larger truth as well as actual, practical-purpose constructions just like anything else in the universe.

We wall off what we do not see, or understand, and what we fear. All of creation is like that too, and that is the secret of life. We must have "overminds" which unify us, as our large cortex does with our knowledge, and which will send us into the future. If we do not, we will be forever relegated to the trench warfare of our ancestors. We cannot just "get by" to get a good job. We have a responsibility to prepare a way for these people. We must unify in spirit-we do not necessarily need political unity-that might only follow from real spiritual and intellectual working unity. We do not need false idols. There is no need for an ink blot test to draw out psychological themes when a person has vision and can directly see the themes. When a person can see these things for what they are. This is the x-ray vision of the new "supermen" who must come. The "Ubermensch" of Nietzsche or the "overmen" are the men who can rise above—over all the niches and traps of our past. These are men of piercing vision which can burn away the dead wood. These behaviors and concrete constructions in walls stem from the same fearful place-except that the intellectual ones are destructive prison, rather than protective as we tend to see these external walls. All walls are prisons too, really. The walls we build are a testament to our lack of understanding of the world and each other. These are the external manifestations of the walls we first build in our minds, and the walls left over from our evolutionary heritage of niches and trench warfare. Many things in our world are simply reflections and external manifestations of our collective mind past, present, and future. That is how we can gauge our

future and know our hearts-by our works. It doesn't matter what flag, symbol, or ideology you organize under. Evil can hide under these things too. We see a bear learn to ride a bike in a circus, but it is not a human being because it wears our clothes and rides a construction of our technology. Also, we can wear the skin of an animal, but it does not mean we are an animal. We must attend to overall patterns. Truth is of this invisible realm-"heaven", the "Tao", etc. in the terminology of religion. All division between humans externally starts within by division from ourselves by not following truth. Like cells in a body are diverse, but wrapped around the exact same DNA in their center, in their nuclei. We need to look deeper into ourselves. This division from ourselves allows us to be enslaved and disfigured toward our doom, allows our souls to be pushed into molds made by fear-molds that become death masks in the great play of life. The difference comes in knowing the origin of patterns we live by. When we know enough about these things, we will not just see truth within our narrow scientific paradigm or culture, but we will change as the scenery changes in our understandings to see truth displayed in all its rainbow of glory everywhere. We will see truth as a person who has finally deciphered the whole vocabulary of available reality. The world does not work like we, as a society, think it does—we do not exist in relation to the world like we think we do. That is extremely dangerous-society is not making good decisions because we do not recognize that many of us are at very different stages of genetic and cognitive development, and many of us have gotten off the path to the future completely to follow a different path.

Slavery is all in the mind--in how you use it. Like cells in a body cover the universal nuclei, living souls have been covered by this dead vending machine of surrogate ideas and motives offering the pleasures of power or status or of the flesh as their reward. These were not meant to be lounge chairs with parasols of built-in rationalizations to keep you lounging and complacent. They are tools to build a future. We cannot afford to have our precious motivations diverted and watered down with other types of motivations and world views from alien minds and patterns. Nationality, or nation, has historically meant racial qualities, a "people", for some very good reasons-even in the bible. Genetics really make a common purpose to a people, just as schools of fish or herds of buffalo run together. In humans, our differences and our environments are largely invisible. We have moved forward quickly enough (because we had to) that a lot of things which might be rigidly genetically controlled in animals are not in us. We need to use our rational minds and vision to see this and avoid mixing with other patterns to the demise of us all. Perhaps there are parts of these other patterns which we can use and increase too. At any rate, we need to study these things closely and talk about them. Those who spend time getting comfortable have no way of knowing a good new idea when one comes along, and resist anything that will make them have to get up and face fear. Without a working knowledge you are not free. Without a well-connected and mobile working knowledge, new ideas can never be worked in, and our hearts and souls can never shine out from our bodies and our knowledge to nourish the

world. The truly eternal flame of the light of truth powers this working engine of thought. Like the nuclei of cells, the universal is also in us. It is not just "out there" This is the most important concept in this section. This "specialized particular cells with similar nuclei" pattern is very important to the construction of this brain theory, and the concept I have already mentioned, the "Logos Echo", the echo of forms through ultimate unity which is the foundation of the construction of the universe.

What is most valuable in a civilization is not gold or silver, it is not "responsible" and punctual citizens, it is not mineral wealth. What is most valuable is our intellectual resources, and the above-mentioned commodities and behaviors are only important if they support the path of life in seeking knowledge. They are only important because they support the advancement of our civilization through our best minds. This is the pattern supported by these things which we are not attending to properly. The people who can actually think are much more rare than the hordes of students migrating through our colleges would have us believe. That has become more of a game to get a better job than anything else. This is exacerbated by the fact that we are unable to consider actual truths, the most important truths, about our genetic differences. Learning to get a better job is important too, but we cannot lose sight of where life has been going for billions of years. Those academic and career pursuits are made more meaningful and grand when we realize their higher goals. As I said, intelligence and creativity are much more valuable to all of our futures than the heaps of gold in Fort Knox, yet we do not guard and monitor the best and brightest among us. We don't even know how to recognize true creativity in ourselves. We seek to increase the material wealth of our nations, but we do not try to reward the highly intelligent for simply procreating-to give an example. Our national average IQ is declining and that will affect all of us. We do not realize how our intellect and motivations support all of this. A nation as powerful as the USA cannot afford to regress-that would be much too dangerous now. Technology is spread across the globe and anyone can survive anywhere. If we regress, we will fall into horrid, regressive warring patterns of empty technology and greed for thousands of years or longer-until we die out. We will have simply armed the future of our own destruction. We who use our minds are the future of life. We are being attacked in our patterns on all sides by other patterns. MacDonald (1998) is an outstanding analysis among many of one alien pattern that has systematically affected our future more than any other—explainable primarily by differences in motivations. Mac Donald's book is fairly politically correct, and defines some differences as differences in "fine intelligence" which might better be described as motivational differences, or as different types of intelligence, but is one of the best of the sadly few books available on such topics. It is ironic that those of lesser ability or lower motives have access to all the things created by those with higher ability and then create a world where those with greater ability do not survive with those very technologies and learned things. You can see this if you look at the relative birthrates of the intelligent, and decline of intelligence in the US for example

(Lynn, 1996). Economic production also depends on average intelligence-it is the single most predictive factor for the wealth of nations (Lynn and VanHanen, 2002). What "invisible hand" drives this economic relationship? The future drives it-to put it bluntly. In many who would develop their abilities, we have homogenized them into the larger society with all its pressures and structures. If anything, in this increasingly complex world, we need to be increasing our intelligence as quickly as we can. We need to upgrade humanity to keep advancing toward truth. At the very least we need to understand what makes someone able to think and be creative and increase these factors. We need to pay attention to what factors enable people to pay attention to the symbols and living truths of the universe toward the transcendence of the future. If many of these characteristics seem to spring from European ancestry since these folks developed, and survived, in the harsh northern climates, then we need to acknowledge that fact by looking at the big picture of these things across our sciences of genetics, sociobiology, anthropology and the universe itself. We need to see this quickly-because our technologies are allowing other patterns to outbreed us and become dominant by destroying our culture with these tools. Natural laws created us all along the way-including the invisible patterns and coping strategies depending on which environment we came from. We must understand that our recentlydevised (in the evolutionary sense) detached languages and systems of thought are technologies to find truth, but they have not caught up to the abilities still existing only in our best minds. They may never be able to catch up, since they are not the living things they represent and have no ability to progress or be creative on their own. As I said earlier, these detached languages can exist entirely on their own and without life as in our libraries. Our cultural patterns and technologies can also exist as styles without substance in other peoples motivated by other things, or in the less intelligent. The difference between a library and a human-motivated intellect is vast. We must not mistake the evidence and signs of life-force for the life force itself, as with the beguiling symbols in the universe. We cannot be fooled into complacency by a wellorganized system of symbols into ignoring this ultimate reality. If life, anywhere along the way in its evolutionary progression, sunk into the lesser patterns of some well-organized, short-sighted system, it became a nicheanimal beholden to the lesser god of mere survival. Stasis defines the "god" of animals as opposed to humans. Western European groups are the figurehead of the life-force and the creative engine of the universe. We have made it farther than any other animal on Earth for a reason-we wanted truth, not safety or comfort. The idea of "kundalini", the evolutionary force in man of the Hindu (Indo-European) religion, applies here. We were opportunists of higher patterns and new ways. We were filled with the creative energy of the universe and this alone is what powers our civilizations. We walked the razors edge of test after test in nature and are about to claim the prize of all our dark sacrifice. All life should rejoice at this coalescence of the ultimate dream foreshadowed by the development and knowledge in our civilization, and consciousness studies. This

is the culmination and creation of ultimate natural law—it is us. All our striving is like that of the neurons striving to construct a meaning, a conscious perception, a unity that can allow creativity and guide actions at a higher transcendent level. This sort of loop drives all life. We can see stasis and destruction setting in all around. This is a critical time in history.

Creativity is relaxed and comes from the soul in long hours of "random" (eclectic, free) reading and reflection from various sources. It is holistic and analytic at once. True scholars must know themselves, and their own animal motives and propensities left over from the past. Human history and the history of knowledge is unintelligible without understanding evolutionary forces in our past. The theory of evolution itself was intensely spiritual and liberating in this sense of our future purposes and transcendence of this world. The imaginative curiosity of childhood must not be lost. The creative potential and wonder that guides children through development must not be lost. The pioneering quest of creativity is deeply satisfying. Keeping an open mind to something new is facilitated by a love of learning. These are the origins of the grand syntheses of the past. Breaking down of existing theories, and understanding the problems involved in a system of thought is essential to progress toward truth. Words and paradigms are organizing tools--like computer programs, dictionaries, and libraries. Cultures and theories are tools as well. There are lots of ways to survive, such as sex, war, power, lying, agriculture, paradigms, and theories, but we must select the way that is best in the long run. We must be careful not to turn these into idols of our own destruction. Only truth, and progress toward whole truth can serve us in the long run. These aspects of truth can all be viewed as tools and materials or launch pads, or they can be prisons. All rigidifying niches in the past have been tests for the survival abilities of organisms of the past. Those who could not adapt died off, or became lost and did not move forward-eventually they will die too after prolonged wandering in a wilderness they do not understand or find direction in, a hell. We are close to losing an environment conducive to intelligence and creativity as it slips ever lower in our society. Our love of the resource of true authority-benevolent and true in the past—is being turned against us by those on the path of destruction. Parts of truth, parts of our world that allow us to constantly adapt and renew, will be lost as well. People cannot make the right choices when they cannot see truth, when they cannot see beyond the world portrayed by their fearful and selfish desires. In this way, we can see that even behaviors considered charitable or moral and highly valued today might, in the long run, be extremely short-sighted and selfish. Truth is the only truly liberating and unselfish thing.

Social interactions are a huge modern force in shaping our minds—amplified and focused by the media, and the school systems. Schemata, a central concept in cognitive psychology, are units of organized knowledge. Schemata are like scripts, or theories for the interpretation of events (Rumelhart, 1980). A schema breaks down, organizes, and interprets incoming data (Leahey and Harris, 1985). Schemata, and other cognitive structures that you live in, are built by

education and social interactions. Complex schemata become a labyrinth we are unable to see out of. Fear makes them a prison. Insecurity does too. So does unquestioning laziness. Blind prejudice, propaganda, and misunderstanding--all of these are associated with closed minds and always involve unquestioned schemata, or programs. These are pigeonholes into which we can place our experiences. If they are based on truth, they can be helpful in simplifying things, but even these were meant to be transcended by those driving civilization forward. We must grow past the nest of social interaction, past the nest of information and stable structures in which we gestate. Many of our schemata today are based on ideas alien in nature, on destructive ideas. In the movie "signs", the inexplicable and even pathological behaviors and events that occur turn out later to be necessary to save the world-as if placed there by a higher power or the future reaching back into the past. This is the pattern of exaptation, and it has powerful emotional effects in the movie. We must take the "water" of life in truth distributed through the ages by our present and past ancestors and the true of heart and drink deeply to gain the strength and resolve for victory of the life-force over all the dangers and other patterns vying for ascendancy.

In spite of the importance placed on speech, most of a child's learning is nonverbal. It is difficult to see that a child is learning so much when the learning does not involve words, when we cannot monitor it. We tend to pay more attention to verbal learning, but the world does not work according to our convenient verbal categories or dynamics. They are only triggers for what minds are already built to do so well-only 1/3 of the 3 basic languages of reality. You can get through formal schooling and life very comfortably by just playing the word game without truly understanding anything--learn words and then write them down at the proper time, or say them at the proper time, and you get an A without really knowing anything. Say What produces the reaction vou want—as if the animal brain realizes it can just sit back and "flip switches" in the cortex. This tends to make it especially hard to admit or understand anything really new because words and learned concepts are not really understood--especially when they are used in new ways. This is the style of civilization without the substance to sustain it in driving it forward. Symbol without the actuality it symbolizes. Written and spoken languages are very recent in the evolutionary timescales. I only hope that our biological minds are not warped beyond redemption by the artificial selection pressure from such artificial systems—it is an environment just like any in nature that conspires to halt our progress by the artificial comforts and internal coherence of its pattern. It can shape us—"we shape our buildings and our buildings shape us", as Winston Churchill said so prophetically (especially about his own egotistical mind). The very idea of the movie "Pet Cemetery" made me sick to my stomach for this (then vague) reason-they were warned not to renew the dead in that old ground because the "ground was sour" and those brought back to life "flipped out" afterwards in classic King spook-show style. Hmmm. I prefer to use science to renew peoples lease on life and avoid the whole issue of sour

ground... (a little humor there again...). Perhaps this is another reason why cranial capacity in the fossil record has actually declined in the past few thousand years-artificial systems combined with new selection pressures. I hope not, but selection is alarmingly fast when environments change. Only the beneficial mutations are rare and take millions of years to arise. There is no need for a meteor to hit the Earth for our species to go extinct. Language ability and the availability of information may overcome this danger. However, even if our cranial capacity has overall declined (like the "Six Million Dollar Man" example again). We have technologies and computers which can allow us to select for larger cranial capacity and for other features of greater intellect. We can certainly see that most of the history of learning has been "non-verbal" before our constructed language-which has had benefits, but dangers too-as any new technology has like splitting the atom. We can build power plants and we can build devastating bombs-with the same technology. These are the most important and complex factors facing us in the future. We must put all our best efforts into studying these things.

Neither Newton nor Einstein were working in an academic setting when they came up with their revolutionary ideas. Olaus Romer discovered that light had a speed by constructing his own calibrated telescope. Newton wrote his theories in the country during the black plague in England when they closed down the university. Einstein worked as a math tutor, then as a clerk in a patent office—both of which I'm sure were highly stimulating for his mind beyond the bounds of accepted thought. You naturally fear being ostracized by groups-which says nothing complementary about selection pressures (who lived and died) in our social/evolutionary past. But also, we need the coordinated efforts of us all under leaders of vision in order to overcome adversity. We need good leaders and teamwork. We need to question the current patterns and leaders. Socially, we have been led into some very destructive patterns especially over the last few hundred years or so. Some patterns of destruction come from much more ancient seeds. These processes are usually automatic, unless you question them (see Langer, 1989; Hall, 1981). This is an excellent reason to know the forces that shaped our brains from our past (see Sagan, 1993). Questioning the unconscious automatic processes is using your human mind. We can then operate freely according to truth using our ability to learn to propel us forward. Thinking and using your human mind means going beyond the material taught in school. That is the difference between training and a real education. We have no real choice in the matter. We either reclaim the creative forces which made us great or be utterly destroyed and lose the true miracle and promise of life forever.

As stated earlier, groups are filled with players and are the playing field, the environment, for power games. Like in a school of fish or a hill of ants, there certainly are benefits to belonging to a group. A group is an excellent place to live. Ants follow a pattern of rigid behaviors that can take them some distance from the nest, but they never see the tree or the forest they may walk by or dwell in. They see chemical indicators meaning food and predators and other

ants mostly-they have reactions to these things as such anyway. These chemicals are their indicators, according to which certain "theories" about the world are built into them which are correct enough for them to survive pretty well. We can make ant traps, and "roach motels" for bugs based on these chemical senses because they cannot see beyond them. No teaching can change this. An amoeba might "consider" their behaviors hopelessly complex and unfathomable, however. Ants do not mourn their dead. If ants were the size of humans, they would easily kill us and eat us--and they would not Know us or mourn us at all--As in the bee hive example, any strange-acting bug, or even a bee acting incorrectly, is savagely attacked and stung. Violence serves to maintain the integrity of their pattern. They do not think about it-it is just what they do. This prejudice is not open to learning or transcendence-they have a pattern that is phenomenal in its complexity and intricacies—all with microscopic brains. Their brains do not transcend. That only arose extremely recently in humans. Generally, those who cannot think well on their own, or who are unresourceful and less creative (and thus more fearful and insecure--a vicious cycle, whichever comes first) join group games for protection and to provide them with their needs in exchange for their allegiance. Political patterns, manipulation, and combative selfishness strategies automatically take over if this is the whole extent of their striving. Group dynamics become a game. For example, "Holier-than-thou" attitudes arise from competitiveness in light of whatever "holy" social coordination pattern or ideal (styles, slang, causes, worldviews, etc.) is in vogue. "Holy" false idols. Peer pressure. Social competition driving people toward goals and ideals that are hollow games. You are considered higher in the hierarchy if you wear the right clothes--an interesting analogy for how twisted and flawed cultures overlay and entice people away from their true natures, their souls and hearts. Their ability to truly think on their own. People are less likely to take risks, and to risk looking "stupid" (or not being understood) in front of groups. The actual gauge of "stupidity" is the program in the group, not the "group" itself--groups don't think, individuals do. Individuals bound by larger spiritual groups over time. Group-oriented people automatically do not think beyond strategies within this verbal virtual reality they have built for themselves. Group interactions demand simplification of thoughts and shallowness of discourse in order to use language to navigate in them. They serve an important purpose, but we must learn to recognize those who were meant to be "cultural programmers". The carved in stone meanings of a simple language system are not reality. They can be taken out of context and twisted to destructive ends as manipulative tools of deceit.

True happiness can never come from playing games. A social game player's own individual life paths, spirit, and meaning are frequently forfeit for the sake of their place in the group (or conditioning milieu). Playing these games, we put ourselves at the mercy of any entity who might seek to control us for whatever selfish end. Even killing others can all be a part of the very real game that is chosen. People are even slain some times for their status-enhancing

clothes or shoes in our society-paying deadly attention to styles rather than substance. This is the quintessential example. In these games, true reverence for life is lost. You do not know what your life is. The slain are just cogs in a machine too. Life is meaningless. The ability to understand the miracle of life, and to value life, are lost. Those things require reflective intelligence and motivation to truth. Drive-by shootings, warfare, and genocide all serve the gang or group under the control of a cultural or sub-cultural program in those who do not search for truth. Such conflicts are programsnamed "MEMES" by Richard Dawkins (1990), and developed later in Susan Blackmore's book, The Meme Machine (2000). I have inserted the word "meme" into this text to relate it to that book, which seems to be about exactly what I am talking about here. But where do these come from? What is their relation to truth and reality? These programs are vying for dominance and for the life and power you give these programs by compromising your soul, by carving up your soul, your truth. These are biological, ideological, and cultural, niches. Fear and blindness is the engine that drives this horror, this false idol. War is always a kind of fighting in the dark, the darkness that has covered the human soul within. Whole truth is an engine to destroy these lesser patterns introduced by the unscrupulous and destructive.

Something has been stolen from these people--ripped out to leave an open wound roughly held together and salved by the machine patterns of social culture. The Programs (memes) are powered by desire and fear (reward and punishment), which sounds suspiciously like they are constructed out of the higher brains intelligence by the lower brain to give the lower brain control over the higher. Control it should not have. Perhaps this is how creative intellect arose-first it was a tool only for the lower brain centers in our recent forebears, and then there was a switching of power over to the higher intellect as supreme as knowledge came together-maybe as a fortuitous, miraculous accident of critical brainmass at some point-throwing the switch over to control by ideas alone over and above the now background noise of the past in our subdued emotions and perceptions from the past. This rare overcoming of the programs consciously—whether social or biological or some combination must be extremely rare. We are now subjected to these programs in modern society early on though-when we are most vulnerable to them and most fearful. Our children grow up without the loving tolerance of parents all the way through, but in day care centers with social forces at work and harried workers who are paid to be there. Before that, there were the schools starting at an early age. Somehow, or some way, I was able to keep from being claimed by these programs-perhaps to write this book. All I know is that the one thing I have figured out that I have always loved is truth in the sense that I analyzed what I loved and truth seemed to be the common theme that attracted me in all of it. In everything I ever loved or thought beautiful-even those things I loved which were critical, challenging, and dangerous to me. To save your life in the short term from pain by adopting these programs is to lose it in the long runsimilar to the Bible which says something like he who would save his life will

lose it, and he who would lose his life would save it, or the asceticism of Hindus which denies short-term things. Negative things naturally follow when insecure and fearful people sell out and are organized by an earthly political culture that is only a relatively small slice of all available cultures. The culture becomes their earthly god, their parent in an extended childhood in the playpen of darkness and politics. It provides for them, explains things, and gives their lives some quick-fix meaning, and large amounts of diversion from any thinking or activity that would threaten the program's stranglehold. Our current culture's ideals are an addictive, destructive drug. An easy way out. They do anything to maintain the supply of "illusion drugs"-positive feelings actually have chemical correlates (Snyder, 1989). Without it they are lost--having never learned to live. Like saccharine, they are beguiled by its artificial sweetness when it is not real. They never learn to have that inner strength. They never know who they really are. To live encounter by encounter without a grand philosophy, without direction, without soul. They live in fear avoiding pain and any true semblance of heroism. To live in fear is not to fully live.

Imagine living in a life boat all your life. The water is scary. You never learn how to swim because the boat is easier. One day, another boat comes with people who want your boat. Since they all live in boats, no one knows how to swim. Many drown in the ensuing fight. Now you are filled with insecurity and fear about other boats and water. One day you happen across an individual who is happily bobbing in the ocean like a dolphin. You are shocked and think the person mad at first. You are very afraid. He lives in the water with no boat! It is impossible to imagine such supernatural treading of the waters even when you see it right in front of your eyes. The creature that does not sink is very strong and sure of himself--almost somehow at home there. He must be a demon trying to lure you to your death! Some alien mutant with gills. You do not listen to him when he warns you about icebergs or other dangers. You paddle madly away and continue fighting in the dark to eventually die in the dark. Even worse, you may pull him into the boat to "save" him--injecting him with drugs and counseling him to be "adaptive" from his obvious insanity--symbolically killing him at the behest of the incomplete programs you have come to interpret the world by. You might even judge him in terms of the self-sustaining boatculture "memes" and imprison or kill him-thus actually imprisoning yourself on the boat or actually eliminating your own long-term future in what this man had to teach. Your mind will not let you understand him--especially after all you have done, including killing others, while living in boats. In the movie "Waterworld", which echoes this theme, there is a mutant like this. He is the only one who still can see the great cities, the remnants of old civilizations under the water of the ocean covering the Earth. He is the only human who can live in the ocean. Eventually, he leads the remnants of humanity living on boats back to dry land. We must have faith in the future, and in the progression of life toward that future.

The programs we have followed were there to be a new invisible (also "spiritual") environment red in conceptual tooth and conceptual claw to bring

out further truth-only real truth could break free of them, encompass all of them and play them off against each other to see their strengths and weaknesses. Only the unity of truth running through them could be a path to transcend them all. Once again, truth is the measure of advancement beyond the programs, for the advancement of life. The programs may have actually been serving a greater purpose to advance us beyond them—the environment ratcheting up its challenge to spur us on to further growth. Who cares if we follow programs if they reflect truth in the end? It has come time in evolution and in the history of mankind to advance beyond them-to leave their cradle. Truth is exploding onto the scene. This must be done all at once to avoid pitfalls. We must increase our best, brightest, and most perceptive, but those who think about things tend not to have as many children for a myriad reasons-all of which are transcendent-like, and forward-looking. Reasons such as "we can't afford it, or we don't have time". Those who would invest more in their children, the more intelligent, are more likely to say these things because they have to be more committed—just the sort of people who must be increased in society. Instead, because of these characteristics, their numbers are decreasing. Other reasons to not procreate like "there is a population problem already" are only reasons to those who see the big picture, while the unthinking procreate willy-nilly all the while. This is another weakness to higher patterns when higher and lower patterns meet. That is one of many reasons that these two types unfortunately cannot mix. Over time, these types of patterns can totally eliminate those we need to make decisions for the future in society. We must begin to fully understand these larger patterns in life and the universe if we expect to have a future. We must adapt to this new environment, or we will die. In China, they are already beginning to implement eugenics programs-partly because they are so pressed by population problems. We must go further than this small first step. In the movie "Gattaca" we see the importance of motivations as well as degree of intellect played out in the story.

We fight, propelled by fear, from the trenches dug in our minds and literally in the earth. Coercion is the game. Master control programs fighting through us-with us as their environment. It is as if our brains have evolved before we properly utilized them—like a trait that exists in a population that is only utilized later when the environment changes or through exaptation. Lesser subset programs turning us into servile robots of our own extermination or perpetual imprisonment (sounds just like the "meme" idea again). This is true in office politics, in national politics, and in the various paradigms of the divisions of science. there are many paths that bring you closer to truth, but real truth is all paths--not faction. The lower brain fears the higher brain it cannot understand only because it has scratched the surface in using it, and has only used it trained up for selfish survival games-like a vending machine or a B.F. Skinner (Skinner, 1965) reward box. In these boxes, the animal only knows what works-it does not understand the construction or operation of the box. Put a human in one, and they certainly would have an idea of what is going on. Put an even more advanced species in there (theoretically) and they might even

understand why people felt the need to construct the skinner boxes themselves. At least you can see what I mean here with this example. It is time for humanity to switch over from animal-past control to God control, truth control, future control. We are at this turning point in history. This is the end times for the old ways. Past civilizations saw it coming in the commonalities of their ideas, religions, and patterns—the memes had not risen to be so strong yet. Always there are scant few who can see out of the programs, the "covered bridge" humanity has labored under. They are the leaders and programmers of civilization. An architect can direct the process of building using computer programs in an office somewhere, but he must actually enter the real world to see what actually has been built. That is the purpose of the programs in the first place.

Cultural ideas gain control over us after we make them and utilize them in innocence--like "Skynet", the originally defensive computer gone awry (attempting to destroy us) in The Terminator movies--which is actually a "net" we need to get through to reach the "sky"-our future in the metaphors of nature. Coordination of behavior by following a program has survival value, but there can be a price if this pattern stops the search for truth. Immediate survival is not the only purpose of life. The real purpose is actually our soul from the creator, and our long-term future. You will lose the timeless part of you that discovers meaning, that paints the world in the many colors of God by following this false idol-which has grown startlingly destructive in the modern world. With enhanced communication and mass media, the blanket of the new false idol of immediate survival and living in the present becomes almost seamless. An excellent place to start looking into the nature of culture for this brain theory is languages. Although language facilitates the communication of ideas, languages are barriers in many ways. Language benefits us greatly, but also has the effect of carving up and insulating us from reality if we do not think without languages. Without soul and meaning, you cannot help others paint their own colors into their lives-you cannot interpret reality correctly. This starts another vicious cycle because it makes the waters even more inhospitable and truly violent for those who would throw off their clothes and programs, and dare to venture in. If you do not play along with the programs, you become a target of ridicule and physical abuse. As if you had touched someone's open wound. Cultural programs or ideologies must be seen as tools for us, not allowed to control our destinies. The industrial robots installed in factories and in the new automated war ships have taken the place of the idealized, heroic human statues of ancient Greece. This is symbolic as well as an innocuous application of technology for practical purposes—we need both. We must see through the barriers before our souls are removed from us, or twisted to destructive ends by those who do not have them because they made the wrong choices. Psychology, in light of evolution and natural selection, will show us how. Sociobiology must take center stage in our sciences. Brain science will liberate us. The truth does set you free. The truth about the world, and ourselves.

Statistically, creators and revolutionaries are comparatively rare. Therefore, few create while many tend to learn what they created. This is a natural rigidifying force in itself. There are more of the learners of tools than the makers. This is a natural barrier to innovation as the complexity and volume of information grows. These same larger groups of people must not be the ones who decide what is acceptable to study in science. They can only choose by current viewpoints and immediate practical problems. Science above all--to keep society adaptive and the quest for truth mobile--must be free, otherwise our programs pick what we see. We must choose ourselves-according to the overall patterns of our future, not immediate medical or practical purposes for example. In order for intellectual freedom to work, each individual must be able to decide for himself. Democracy is no good, and can actually be worse than other forms of government, without a set of principles to protect freedom, and without truth. Those who control and run our media and decide must be people who see through patterns with the future of knowledge in their hearts. All we seem to see these days is people reading from scripts something someone else has written. We cannot identify sincerity by the passion of words, and knowing someone intimately, any longer. Our civilization is too large and too mobile. We do not live with the same people all our lives in a village, and if we do, we are not dependant on them and don't even know them very well. We are detached from our natural ways of discerning who should lead, and our natural ways of discussing important issues. They are discussed on TV for us now. Even our elected officials have someone else write their speeches. In movies and in TV shows we accept contrived situations and speech patterns and attitudes as real. We do this automatically because TV is a recent invention. Our minds developed to see what happens around us and make decisions about reality. This makes it extremely difficult to judge people in order to make the right decisions. Even the programs that we might be able to rely on in the short term to survive, are made dangerous in the modern world of mass communication. The empowerment of individual rights opens minds, Automatically. The psychological effects of our rights are the most important aspect of them. They help to free our minds. Freedom increases peace in advanced minds following truth. Freedom increases violence in lesser minds not motivated by truth. What is deep down comes out with freedom or power. Patterns and coping methods that are genetic and feel natural come to the surface. Therefore, freedom is much better for some than others. Psychology had not been invented at the time of the revolution in this country (1776) but it was on its way in 1789 in Wilhelm Wundt's lab in Germany. That is about the time the Constitution was ratified. Psychology was therefore becoming important all over at the same time it seems-like people building similar pyramids on different continents. Psychology and freedom are greater constructions than the pyramids, because they are an actual way to get to what is only symbolized by pyramids. It is important to note that the less intelligent, and those enamored of the programs for other reasons may not want freedom, or care about freedom, for personal reasons that are not good or healthy for the

\Diamond Steven E. Romer \Diamond

rest of us, or for the future of humanity. They vote too. It is all very complex, but it is easy to see that in a democracy it is especially important to have a high proportion of intelligent people motivated for truth—and not just for economic reasons as in the book I.Q. and the Wealth of Nations (Lynn and Van Hannen, 2002).

Science, and academic pursuits in general, should be immune to social and personality variables from our narrow, less polite, and animal past. This can be done. A scientist should be flexible. Synthesizing and considering alternate theories should be the skill most emphasized--given our tendency to make sacred any existing scheme of thought through social dynamics. Many scientists will be hard pressed to come up with alternate theories fluentlybecause of how they are taught. This is the key to overcoming both personal and societal illusions and errors. Scientists should be aware of how social pressures can shape their thinking. The ideal scientist, and even any educated person, should excel in both (individual) psychology and (collective) sociology. The scientist needs to know a large amount of eclectic information to enable transcendence of all potential influences and to help move thinking beyond the biological and cultural constraints of human minds-in order to be honest, to portray the whole truth. The nature of truth itself has an echoing pattern (logos echo) which makes various levels look like the destination. That is how even the good at heart can be fooled. They actually think and feel that they are following the only truth in following a particular religion or idol. It is only after we see this pattern itself (which gave rise to our own brains and language even) that we can know real truth. Genetics have everything to do with being able to really see truth, or what memes you are susceptible to. This is extremely important information to our future--now that we have decoded the human genome, and are beginning to have the power to change our own genetics. Ethnic groups of people have their own strategies of survival tooled into their emotional and intellectual makeup (MacDonald, 1998; Baker, 1974). This idea of needing alternate theories and to break through societal constraints on thinking is nowhere more true than in the field of brain science and consciousness because of the unique problems presented by them compared to what we have been prepared for by evolution to see.

Like some historical progression from polytheistic to monotheistic religion, we should realize that truth can only come from vast systems of knowledge considered at once and working in concert, which is how reality works. There are many lesser theories, but they are connected in the overall scheme of things by a more general connecting principle by which they get their power. The unity of the universe is the most basic quality of it. The unity of the higher consciousness in a brain is its most basic quality as well. To focus exclusively on one narrow aspect of reality is lazy and a form of unintentional lying--much like a news program focuses on certain stories because of ratings or their sensational nature for advertising revenue reasons, thereby sometimes giving us a twisted or biased view of reality. Plane crashes are rare, but seem to always be on TV, but car crashes happen frequently and are rarely seen on TV as one

inane example. No matter what we think, the particular slant of our cultural worldview comes through vividly in what is considered news, and how the stories are selected. Our television shows actually set out to change our perceptions of things-such as the TV show "All in the Family" which sent out a "social message". Actual reality is truth-not a slice of it served up across the airwaves with a narrow, immediate, shallow, self-centered purpose. Reality is something apart from our built-in tendencies to slice it up for survival purposes (as we can easily see is the case with lower animals in relation to ourselves), or to hide truths from ourselves. Like a blind man describing an elephant as long, hard, smooth, and sharp (the tusk), while another describes it as ropy and flexible (the tail). As an overt example, reporting airline crashes only, not the successful take offs and landings, can give us a fear of flying automatically. Our brains were not formed to allow for the manipulation of reality that a television allows. We must learn to understand what these things mean, so that we can see the objective realities behind them. Better still, we need a whole unbiased picture of truth on TV somewhere. Our survival as a race depends on it. We must realize that much of what our brains do is automatic. By accepting this fact, we can learn to be aware and overcome destructive influences. We need greater awareness and intelligence-not patterns dressed up in the apparent prestige of "enlightened intelligence" without substance that are actually destructive in the long run. We see these dangerous styles of thought in communism, liberal agendas, and political "correctness". What we really need is life-force correctness.

Television is a very recent phenomena. To our brains, what we see that is survival-related, and the number of times we see it, is what matters to our automatic brains. Our brains evolved without television. Especially beguiling is real information--such as events culled from diverse situations around the world and piped unnaturally together into the natural environment of our homes. These events, in effect, become part of our immediate environment even though they may be rare or taking place thousands of miles away. The problems on TV are our problems and concerns automatically-regardless of whether they really are the concerns we should be worried about in the long run. These things on TV are neat to see, but these things are only fragments of truth--half-truths because they are taken out of context. Truth cannot be twisted if you are curious and learned enough. When you consider how your brain and emotions work and developed before the invention of television, you can check yourself and decide what to think before you just react. You see the twisting forces then, you see the misleading twists, you understand. You see someone else's personality, someone else's purposes and reality. No matter what the intentions of the purveyors of TV, the partial truths there are destructive if we are not armored with whole truth. Only whole truth can assure our future and that the proper decisions are made. We must look beyond television for these things, even though it can be a great source of information. You look back over the years and wonder why you do and think the things you do. You begin to see the influences, and the influences on the influences-your life starts to make sense,

and you see a trajectory or a coherence. Science helps to do this for all life, through all time. We are simply trying to understand ourselves now in retrospect to gain wisdom and a better perspective with which to meet the future. In order to ascertain truth, it is necessary to take a step back to see the big picture. Unity is truth. Awesome, real unity is reality. If you look at the big picture, you can compare where the theories you hold do not fit, then you can try alternate theories until you find a theory that fits everything you can see. Once you get the overall pattern of the photomosaic, periodic table, or puzzle, it is easier to see where the missing pieces need to go. You are responsible for the existence of truth. You must be prepared for the shock of finding that even your most cherished beliefs might be part of a grand, if unintentional, lesser lie compared to a grand scheme of things. A bat is not really lying, it has enough truth to survive in the short run. Only from our perspective does it seem short sighted. From an ant's perspective, the bat is a miracle, it is magic. From the perspective of every other creature, we are like that. We must always be prepared for another level to things beyond what we know. Our theories always seem coherent-even the "plum pudding" model of the atom had its day until greater amounts of information and evidence were put together to make that theory untenable. Within individuals, apart from cultures, languages, consensus, desire, and power, is where truth lives. Truth is our real selves stripped of the fantasy yoke of these things. Truth is not a comfort zone. You will see wars rage on the levels of subcultures in civilizations as well as between them. Different personalities (ways of coping with and understanding the world) come into dire conflicts. You will see patterns that will lead to your own or a whole civilizations demise. You will see the deaths of thousands of righteous people at the hands of those who love a lie, and worship false idols of truth. As you get closer to truth, greater and greater rewards are offered for turning away from truth. You are also more "useful" to those operating under programs (however large) if you can program the way they desire for their own ends. Ego means you have accepted totally what the programs told you, and have stopped at the ideal of the program satisfied with yourself.

Another excellent example is accidental gun death reporting. These are covered by the news, but not the much more numerous deaths by backyard pools, household poisons, or even medical malpractice. Whatever is highlighted by the media becomes an issue in our minds. Why don't people think or question the larger issues? Whatever subject we studied in school becomes how the world works. Whatever soft drink we see on TV in the heartwarming ad becomes what we ask for later without making the connection. That's why companies spend billions on ads-because they work. Imagine how those with a vested interest in the political power of our support depend on the press. That is what really elects our leaders—the press. Recently, Trent Lott was forced to resign as Senate majority leader for a few comments he made which produced bad press. It doesn't matter that all the results and statistics from all the various government programs—including U.S. Justice Department crime statistics happen to back him up. More important than truth is that what he said was not

politically correct. We don't even realize we are doing these things automatically, and we grasp at any rationalization or explanation handed to us. The only reason these rationalizations sound reasonable is because we do not see the larger background of truth-we "think", or rather respond, totally within the boxes constructed by someone else. Of course, the answer to this gun-accident question is the same as for any freedom-we cannot afford to lose it! As I pointed out before, a lot of the data on these gun crimes and deaths is taken out of context so that all we see is "gun" associated with these things, and we even have books constructing internally consistent arguments based on complete fabrications (Bellesiles, 2000). It is as if it is more important to be complex and consistent, according to the pattern and program of those controlling the press and government. Here we have lost all connection with actual truth. This is a very bad situation here that we previously saw only in oppressive communist countries. When we know how our minds work, and their histories, we are able to see these events in context and much more clearly. We know reality much more accurately.

Lies and half-truths simply cannot take root in a mind that can see around them, in a mind that is naturally inquisitive, and constantly mobile considering and constructing alternate theories. Truth is beyond simply "intelligence", although intelligence helps lead us to truth. All lies and evil are based on, or follow from, desire, fear, and fragments of truth. Lies are easy. Anger finds release in our unconscious patternings and ways of dealing with others. When someone is in a bad mood, they are much more likely to get mad over smaller or otherwise insignificant things. Anger finds its own release this way. If you see how your mind works, you find other releases. You work out at the gym, improving your body, while thinking about something that made you angry for example. Furthermore, you are less likely to get angry if you see how minds work in general. Understanding is peace of mind. When we are not challenged, when we just do what we want and let our minds paint the world in colors from our animal past, evil thrives. Evil is ignorance of self, and automatic survival patterns not adapted to a free civilization. Aryan (European) roots have been found in the majority of the world's languages, and the holy Sanskrit of the Hindus and Tibetans follows European language structures. Archeological evidence from thousands of years ago shows that Caucasians were everywhere in the world where civilizations arose (mummies in China, Egypt; bones found in the Americas from up to 11,000 years ago, cultural evidence, etc.). The more we learn, the more we grow close to God-god in the true sense of this theory as the force which created us and "wrote" the logos echoing through the universe and life.

The truth is much more complicated. The truth is more like a mountain of knowledge-unitary but highly complex stratifications and ponderous. This mountain of knowledge visionaries and true scientists seek to scale--from which to see the world, the seen and unseen world—which is no less valid simply because we need abstract intellectual principles to see it. We use the organ of intellect to perceive this world—augmented by various instruments

and symbols we have constructed. The meaning of a word is not scientific, not visible in a material sense, but that meaning is very real. A word is a singular and multifaceted focus of information-which gives rise to meaning. Meaningful knowledge is a nest of rich, mobile background connections which serves to nurture the egg of creative thought. The greater the nest of mobile knowledge, the greater the eggs of future life. Education should weave such a nest to enhance the search for truth and the maintenance of freedom. Education should nurture the soul, in this true sense. It is ridiculous, from this perspective, to think that religion could be separated from education. All learning is toward the singular coherence behind things that I, and others, call God. What teachers and others refer to as "tangents" or "tangential thinking" can be the most valuable part of an education. Science and education are too compartmentalized--like polytheistic, and many other types of religions, or a box of large puzzle pieces we still need to put together. Like ancient farmers worshipping the "god" of the crops because crops are their livelihood, their slice of the world. Science tends to put an end to such premature worship that stops thinking, but science itself must remain mobile and not just another manifestation of our polytheistic-tendency brain patterns. We did not stop at the worship of the "plum pudding" model, or the "ether", and so we moved on to greater truth. That kind of progress gave rise to our ability to glimpse things and patterns which gave rise to religions in the first place. The intellect is fundamentally holy. The creative quest for knowledge in western civilization and its European peoples is the same as the force which pulled all life from the void. The holy intellect came up with our detailed "God" concepts and separates us from the animals who live in darkness. Truth is not contained in a religious or a scientific niche. Whatever made the universe, both science and religion agree it is good to be harmonious with and knowledgeable of that factor-whether it is a set of principles or a spirit giving rise to a set of principles. Natural selection, long before religion, has been doing just that making us harmonious with unity. These are all things of heaven-our sky-blue future of ineffable unity with the sun of truth.

Science does much better than religion in finding truth, but we have gotten into trouble when we stop on the way to truth to apply knowledge. For example, DDT sprayed on crops affords protection and helps them grow. DDT gets into bugs and travels up the food chain--eventually killing off bald Eagles, our national symbol. We must always be on the lookout; we must always look for alternate theories. Whole knowledge can prevent these things. Whole knowledge can save our nation, not just the symbol of the bald eagle. We must be genuinely excited about finding new knowledge. We must not just give this quest lip service and then let our minds do their same old niche carving and entrenching of our thought. This is essentially the quest for the Holy Grail. The quest for what the Holy Grail actually symbolizes. We must persevere. Reality is a continuous whole. Narrowness and rigidity are always a symptom of selfishness, insecurity, and of more animal, unadvanced, survival-oriented personality styles. Animals must stay in their niches, because they have been

fundamentally shaped into them, but advanced humans do not have to. It is difficult to have faith that your mind can work like this, since narrowness is naturally emphasized by modern schooling. Bad information can totally mess you up too—if it gets tooled into your psyche early on like so much of our culture already does. It makes it that much harder to break free from these halftruths or lies if they are embedded intricately in your whole world view, twisting it into a hopeless pattern. A skepticism taught from the start can handily do away with these problems. We must always be moving forward, and not just simply looking for the idea that will make our career or outpace the next lab in the quest for an award. Truth must be primary for fundamental reasons—not for the surface accolades of money or awards.

Question-asking is a difficult skill to acquire. This is made much easier by starting early. To keep from drawing conclusions, to keep your mind in a state of flux, can be uncomfortable to those trained and rewarded for taking on the conclusions of others or who measure themselves by how well they know the conclusions of others. Part of the problem is that it is not what you know, but how you know it. The information is not as important as how it is tooled into place, how it is woven into your reality, your mind, and your world. Knowledge must become a living part of your world. How did you come by your knowledge? What was your motivation? A course in thinking to the heart of problems should be included in the science curriculum--except that this type of thinking is important to all acquisition of knowledge and should be taught all along. For example, analogy is a powerful tool for excavation of creative potential from a mind. Analogy and metaphor are the basis of all language and all learning. Analogy and metaphor let you stroll around to other sides of the reality "elephant" to see the whole-part of the inner organ of seeing meaning and larger patterns to things. Metaphor is a basic principle of nature and minds with their symbols, and a key to wisdom. There are patterns that run through nature like the personality of God--Like a close-up of the seemingly repeating parallel patterns of a small section of a spiral, when we take a larger view, we see that the spiral is made from all one line starting at a center of unity. We tap into these repeating patterns to do or learn anything new. Using metaphor is a symptom of thinking. Mountains, gold, waters, lightning, fire, and the sun, all have universal patterns threaded through them, and those patterns repeat. Our brains were built in the same world that holds forth these patterns of matter and energy. Our language depends on these analogies and metaphor-our very brains themselves are allegories of the universe. We use different brain areas in different combinations like we would use different words in different combinations to transmit meaning and information. Each area of our understanding is a description using these basic words-the words of god or the language of reality-the ultimate patterns which made the universe and by which it operates. We are becoming god-like in our construction of metaphorthe most universal pattern of the universe. The meanings of these things echo in our brains because our brains came from the same universe they come from. Meaning is the heuristic of our true understanding which echoes like the forms

of the universe echo. Our education needs to include metaphor as a central device. The problem in getting people to follow these patterns is that without the underlying genetics, it will just be the style of thinking—making it harder and harder to see the natural state or root of these things. Metaphors constantly change depending on context--just like good thinking habits. Synthesis should be taught alongside analysis. How to see the "elephant" should be a part of education. How to see. That is the real motivation behind all learning. We should not feel guilty about our blessings, or in defending them with force. We heard the call and followed the razors edge. We carry the torch of life.

Formulating principles should be like an artist's palette. Creating/predicting non-existing scenarios (imagination) from them will highlight the important variables in any field. This process alone can reduce rigidity and increase creativity. The ability to think laterally and eclectically should be encouraged. Making connections between things. Good thinking uses the accurate reality constructors of the brain like an artist uses color, to try to paint the essence of things. To make our brains like the creator of the universe, to make our brains work like the universe should be our goal. What could be more natural? Evolution has already loosely conspired to do this for millions of yearsespecially in humans. Humans who know a lot about the universe are closer to God, or whatever you want to call the unified factor which made the universe if you don't like that term. Imagination is the key. All meaning and all that man has created requires imagination. PET scan studies show the same patterns of metabolism (activity) in the brain of man for actual experiences and for the same experiences when only imagined. Good thinking is reality imagination, not a set of dead facts. Reality is a detailed, holistic, connected phenomenon. Brains should be trained to think in this way.

Humans love to divide things up, to conquer them, to pack them into words, to speak of them. But we must be able to transcend these barriers in our minds. The concrete, the abstract, the details, the conceptual "wholes" are just compass points for the real whole of reality, corners for the same "room". All one thing. We should be able to race off instantly to anywhere in the room as necessary to understand anything at hand. Reading comprehension is important, as long as you require a working comprehension nested in diverse knowledge and association. Mathematical ability and verbal ability are excellent raw materials for creative thinking, and should be emphasized as raw materials for something greater. Visual analogy and visualization are extremely valuable skills for teachers and students. If a picture is worth a thousand words, then truth is worth a thousand pictures--like a reel of film is a series of pictures. We must light up the pictures for students to see the film of reality--a complex multidimensional world of many theatres. This is the best way to counteract the divisiveness of words and cultures. All education is really the lights, actors, stage, and action of reality filmmaking. Education moves you towards oneness with the universe. Your brain working like the thoughts of God. Synthesizing and considering alternate theories is running through film to find the best clips. Whole reality is like many films running at once. Training your mind to parallel reality, to

imagine reality, not digging up names and dates and pat concepts on some verbal test. Even a film is narrow and linear compared with the imagination of reality, but it makes a good analogy and step in our ascent toward truth by illustrating the nonverbal complexities of things.

When a mind begins to work wholly in concert with reality, all doors are open. We become tuned to the whisperings of the divine voice which does not know the bounds of vocal cords or vocabulary in its complex speeches. Like a child slowly learns the order in the buzzing confusion of the world, there is a time in the culmination of education when we see, like footprints in the sand looking back, that the "divine spirit" so to speak, has been with us all along. Einstein said that there were two ways to live your life, as though everything is a miracle or as though nothing is a miracle. Understanding comes from within and from outside at the same time--clicking together as a key and tumblers work together to open a locked secret garden gate. Education can be difficult when you are trying to teach people about the thousand-word-a-second epic poem of reality. People sigh and say "I guess you just had to be there" when they try to relate a simple joke and fail, they are acknowledging the inadequacy of words to relate the whole meaning, timing, and drama of a situation. It would be considered strange for a painter to paint a picture and then describe it to people instead of showing them. It is not the same. It is better to see the painting yourself. Imagine how difficult it might be to tell someone how to apprehend in their minds the spirit of all reality that seems to be painted everywhere. Especially if they have never even truly looked at a simple painting their whole lives. Art is much more important than we like to think in academia. Art must say something multifaceted to be truly in the realm of art. When it snaps out of experience the fleeting and truly meaningful larger patterns, we say it is great art-highly and hauntingly meaningful art. Considering alternate explanations for phenomena should be a major focus of thinking--a difficult task considering that even whole cultures have historically maintained mistaken or inadequate and dangerous self-destructive belief systems. Even our own. The most difficult thing to see is your own personality flaws since you are immersed in them-they are your world. Problems in whole cultures can be the same way. We can be beguiled by the symbols or stories of culture and begin to worship them, while forgetting their origins, contexts, or original importance. We lapse into the lazy style of past leaders, instead of realizing the substance and goals that propelled them. This is the true nature of the problem with education and science today. Considering alternatives-expanding awareness-- is a prerequisite for creativity. But first you have to be able to synthesize alternatives by intimately knowing how all the variables combine to produce possibilities. This involves an excellent working knowledge of large and small variables of many descriptions. You need to have a feel for the variables, so that they become almost an extension of your body like fingers you type with. Some things cannot be tested, and we must acknowledge that standardized test results are not the standard of a thinking

mind--reproducing is not creating. Being able to generate complex alternatives that are true to life is the best measure of ability.

The standardized tests we use presuppose that there are right answers to all the questions asked. Most of the questions relate to prior learning experiences. Tests of indoctrination. If you think beyond what you have learned, you are at a disadvantage. For the thinking person, things will not be as clear-cut anymore. Timed tests increase the disadvantage of deep thinking. You could be a person who can figure out any of the questions given a little bit more time, but those who have memorized the proper formulas to plug into the problems or the proper patterns for the questions by practicing them will get a better score. The information in a question can seem inadequate if you are not thinking what the test makers expected you to be thinking when they made the question. It becomes hard to tell what they might have considered the most intelligent answer. To get a perfect score is in many cases an excellent gauge of your sensitivity to social expectations for your thinking-following that is the opposite of individualistic creative thinking needed for advancement of the higher association of the whole program of life. Although there is a place for this kind of learning--especially when it comes to the basics, boldness and fearlessness in the quest of truth and knowledge are much more important to all of us, to our future. Motives, and not knowledge are most important. Imagination and creativity naturally follow from the right sort of educational motives in combination with the requisite genetics.

To be sensitive to social expectations--the path of least resistance--will ensure your success even, surprisingly, in higher levels of academia. In graduate school, you work under an established professor who (hopefully) has money from the government to work on a specific research problem. The scientists on the government panels that hand out money have specific views in mind too. They are members of a community. They want safe bets. So do the politicians that appoint them and allocate money. You get money according to proposals that sound acceptable, or practical, and according to your experience in that area of research. In short, there are so many hurdles and devices that keep people who think differently out of the system that it is a wonder that progress is made at all. The sheer numbers of researchers tend to make up for this somewhat, but we need more quality, not quantity. Many of our best advances were made by individuals on their own before standardized tests or intelligence tests. It is the same old problem of human nature causing rigid power structures that rears it's head in any government form that there has ever been. The entire constitution of the United States was written to counteract this fossil from our psychological (animal) past. In the years since the constitution was written, especially in times of need, we have found rationalizations and ways around even these advanced constraints on the animal within. We should pay careful attention to these changes, and which groups might be behind them, ultimately. Science has ironically become such a power structure-the very thing which is supposed to move us forward to transcend such things.

One of the most agonizing examples of this destruction by deception (There are more recent ones) comes from the early history of this continent when the conquistadores were admitted to the highest circles of power in the Maya civilization because they looked like the mythological "Viracocha"--The white-skinned, bearded, "creator god" who taught them to build their civilization. Their faith in appearances led to the rapid, complete destruction of their civilization. The conquistadores burned any religious writings, temples, etc. they came across. They melted down precious religious icons full of truths about these people for the monetary value of the metal, for the more immediate value of these things to them. The conquerors too were controlled by their programs. They were not interested in the big picture. From the viewpoint of this theory, patterns taking place over thousands of years or even millions of vears can be interfered with or destroyed by the short-sighted decisions taking place on more immediate time scales—no matter how much "good" they think they are doing. It can take years to build a building, but only seconds to demolish it. There were tomb raiders in Egypt too. The point here is that appearances are deceptive, might only look like what we aspire to, and can destroy because appearances are not truth. They provide a dark area behind them, and those that remember only appearances, that learn only the façade of knowledge on some artificial mnemonic street, will destroy us eventually. The deep wholes are the truth, transcending time and space, not the surface. We need the information to unlock the gold in our songs and legends--such as the modern American country song about "the devil went down to Georgia", "The devil in the house of the rising sun", and the fiddler who was "the best there's ever been" and who beat the devil. That is not just some silly country song, but became popular in the public imagination because of the grand themes behind it, the genuine article is echoed there. The "devil" and the "rising sun" echo the grand themes in the progression of life, creation, will, and destruction. Awareness of these problems, which affect science, government, and all humanity, is the first step to moving beyond them and finding solutions.

Current theories of brain function view computer analogies and electrical transmission of information as a basis for all mental life and behavior. Neurons are painted up as complex computer gates. Axons are like electric wires. These are excellent analogies, but fairly obvious considering that computers and electric wires transmit information and animate huge parts of our manmade external world. It is interesting to note here again the power of analogy which allows us to understand these things, and provides a framework within which we can work out the details and improve our knowledge. Certainly there is great merit to these ideas, but these concepts cannot possibly be the entire basis for our mental life or consciousness. Computer analogies are hopelessly inadequate as a way of conceptualizing total brain function. Analogies made by minds as an altar to themselves and robot-like narrow aspects of our times. Computers are just one aspect of our total environment--all of which is encompassed by brain functions. The brain is the organ of all we know--making it a different sort of problem in science than any other. Perhaps there are no true

analogies of brain function except everything in existence, and how that works. All meaning in the outside world comes as a result of brain function. Analogy itself is a quality of holistic universe patterning which I have previously discussed, and of mind in order to understand this universe. Brains are the organ by which we know analogies. Using chemistry as an example, once you have worked out the basics of how reactions occur, once you know the properties of the elements, all reactions become intelligible and predictable. Many of the secrets of the universe available to science are already built into the structure of the DNA which is a key part of the universe. It should be obvious now why so much time was spent on the previous topics. Short-sighted social dynamics are a wilderness that can obscure the quest for truth. There is no understanding of the brain until we understand ourselves and our world which is built by our brain.

I assumed the risks (not receiving my PhD) and proposed alternate avenues of investigation while attending graduate school. I went against the prevailing currents (including professors advising me not to), because I had to. The first organisms that developed feathers probably looked strange to the existing organisms who did not have them, yet those with feathers had to survive-be themselves. Flight in birds would not have eventually developed without them, even though there was no "explaining" to the other organisms why feathers must exist at that time. I tried to point out to my professors the impossibility of current brain theories. I knew with a conviction of years of intense consideration that brain function could not adequately be encompassed by past theories anymore. I tried to relate my excitement at the promise of glial cells in these problems. Glial cells had to be considered logically, and the science could not progress without them. In a way, the neuron doctrine and computer analogies were false idols which we needed to progress past. To me, to switch topics would be the worst form of lying and sacrificing my long-term potential, sacrificing the future, for the sake of politeness and a PhD.

I love truth above all things, it is the sun of my perceptions of beauty—the central icon of my religion, and the engine of my soul--even when sometimes it seems that a supposed truth slips away the closer you get, and becomes just another nexus in a greater scheme of things. Another nexus and echo in the more ultimate unity of whole, moving, animating truth. This slipping away, this seeming perpetual instability of the continents of my ideology just motivates me all the more. I am not a man who sinks in the ocean or panics in wide open spaces. I love learning deeply, and I would love to teach others to love learning. Instead, I had to leave school because I could not accept the levels of truth existing there which were not full truth to me. A man must follow his heart. It was not just them, it was me—I am different in this and hard to get along with because of it (my wife agrees wholeheartedly). I am sure this happens to others as well. We have left little room for anything different or truly new—whether in concepts or in people. But since by definition those who follow the directives and pressures of the group do not scrutinize their own actions, they do not

know what they do, or even how to question to find out. Worse still, many do not care about these "automatic weapons" against the future.

Pathways are made for all sorts of handicapped individuals in our school systems, but no ramps are made to accommodate students who may only learn (naturally) by creative questioning, and in whom the system as it stands actually holds back and interferes with their natural love of learning, and their creativity. Our best minds can become imprisoned by the system. These prisoners must be freed. Ramps must be made. Pathways of freedom must be built. We can restore our schools and culture to the greatness brought on by freedom. It is no accident that many of the great discoveries were made freely-not as a result of the criticism and rigor of others trying to force you to think in the way they considered enlightened. As an example of the inadequacies of the current system, there is no (at the time I wrote this anyway—now there IS!) one on earth working on the theoretical brain science topic of glial cells and human behavior--a favorite topic of mine, and the one that led to my leaving graduate school. There were two people in the world working on related topics, one in Australia, and one in Canada. What can a person do when they have a new idea? A totally new idea that people are not especially interested in hearing when it does not relate to any existing theories in the usual ways. There is no room for them in the current system. You cannot think beyond the realm of your professor's work. All your energies are expected to be enslaved to the projects of your advisor or professor that you work under. After four to ten years, if you are a good student, you can look forward to a "post-doc" which is a euphemism for more of the same under a different professor. So, after two to three more years of post-doc, a total of six to thirteen years of arduous lab work and thinking along the lines of someone else's work, you finally are out on your own. You are now a safe cog in the paradigm machine. Like those electronic sound-activated shock-collars used to automatically train dogs to stop barking, eventually they stop barking--even when the collar is removed. You have been assimilated into the system. Now you are interviewed by your paradigm peers for various academic positions or jobs. You are expected to "publish or perish" now, and all grant money (fuel for the publishing to sustain your position) comes on the basis of your training or past work as evaluated by peers who have come close to the current ideals and so are in power on the respected review panels. Your papers are reviewed by peers with vested interests in certain viewpoints--Their own viewpoints. The collar is never completely removed while you work within the social system. A complete lockdown of the educational or knowledge machine occurs this way. In the modern age we must work quickly-we must transcend these barriers carefully.

A cat or dog might attack a butterfly because it sees only food. Its brain is set up to find food in things that move and fly. It does not see the higher symbolic value of a butterfly, it sees only food. The cat's actions are a crude and motivationally survival-relevant approximation of the real intellectual "food value" of the meaning and knowledge available in these things. The

meaning is already there, but it cannot possibly be seen by the small, narrowminded brain of the cat. The butterfly is motivationally relevant to the cat, but in a different more immediate way that has everything to do with practical considerations for survival in reference to the easily discernable patterns of the cat species. With knowledge, and meaning, we begin to see the overall larger pattern of beauty in which they are embedded. Only the whole panorama of the mobile lifespan and cycle of a butterfly portrays the truth of it. We must learn about all aspects of its life cycle, and reflect on it in reference to a large stockpile of other knowledge in order to see this higher meaning. Only the whole panorama portrays the larger meaning, the larger truth, of this pattern. Truth is all about wholes, history, context. Truth is that which spans time and space-the essence of things, the timeless. Vision is a gift of the highest patterns of organization in the universe. Vision is a gift of the theoretical unity underpinning these things—whole knowledge, not alleys of survival. Vision is therefore a gift of God, what religions have called "God". God's children are those that reflect this motivation toward whole knowledge, and see with the eyes of god in their heart and soul. This extends even unto the phenomena of nature—where diamonds, sun, gold, etc. all take on a higher meaning and gain their original intrinsic value and desirability. We can see these things as signs of status or one-upmanship, or as signs of other things like food or clothing and shelter, but their original value comes from these haunting higher meanings which we see reflected in them as motivational significance and extreme beauty. An ideal by itself can become programmed into a civilization without any substance behind it. Only a small minority of the best and brightest minds of the generation can see the true meaning of these things. A tiny minority. They are the hub upon which the wheel of life turns. We cannot afford to ignore them because our patterns and facades have grown more complex, and therefore we cannot discern them anymore. They are the connection to our future, to the creator. Rather than having a convent of celibate nuns, god wants us to have a high level of genetic superiority in order to increase the numbers of those capable of seeing these things. They can then be selected by the future more easily and rapidly with less chance of their destruction by the unscrupulous or the followers of false idols and facades. All we need do is read what is written across the panorama of life to know that these things are true. We must not transfer the biological urges meant for our children (protection, resources, high parental investment) to those adults that only look and act like children-follow false idols, lack vision, succumb to animal urges without direction (Golding's "Lord of the Flies" again). Folly in children is to be overlooked, or reprimanded, but it is death incarnate in adults. Things which we call "humanity" or "humanistic" now can actually be the epitome of unthinking animal patterns-food, shelter, and even projecting maternal and paternal charity and forbearance on those that will destroy us. The protective, as well as the aggressive instincts must be seen in their larger context and origins. We must see the reality in our new and changing modern environment and make the right choices for our future. Ideals become idols and rubrics of style under

which behaviors are organized without regard to their substance or origins. This unthinking and unconscious behavior is dangerous to our future—as we see in the cases of anorexia, bulimia, violence over cool shoes, etc. in our society. Those cases of twisted ideals destroying are the extremely easy ones to see—especially since we can stand outside of them. We have more deeply ingrained versions of all these things too.

Each little thing in the world in microcosm contains the seeds of the overall pattern of things because of the logos-echo quality of the universe. The teachers in various classes in elementary school used to periodically say certain things which would set me off. Off into space, thinking about millions of other things that this original point they made had reminded me of. I began to consolidate all my knowledge in this way, making working models intimately related. That is how my mind works, I did not do it on purpose, and I could not do otherwise. I nearly flunked out of various grades because I could not take notes or pay attention to the narrow perspectives of the knowledge we were learning. A lot of people can get along just taking these things in and reproducing them on an exam, but you cannot be truly creative or see true meaning in things doing this. Perhaps this is where we get the stereotype of the absent-minded professor. We can see that another pattern of learning can arise. One that lets the universe and what it teaches flow freely into an unbounded mind full of faith in the truth of things behind the façade.

Politics and truly creative science are fundamentally incompatible. To do either takes a lot of mutually exclusive mental energy. To excel, you need intrinsic motivation. You really can't read a book and play chess at the same time. One takes away from the other. They both are cerebral but incompatible as guiding motives. Those who hunger for knowledge do not spend their energy on politics. Scientists who engage in politics are diverting too much of their precious mental powers into politics. To me, that is worse than finding politics becoming ascendant in, and rigidifying, religious organizations. Science may have been started by the same types of minds who gave us religions, which were then infiltrated, rigidified, and petrified by the well-meaning, but fearful who play politics and see only a splinter of truth in these things and cling fearfully to them. These forces are like the paranoid computer in 2001 A Space Odyssey again. An advanced destructive force we originally created for another purpose now becoming the adversary. The horror of this situation comes to the surface in such incidents as the burning at the stake of Bruno for espousing the truth of heliocentrism, or the Spanish inquisition burning and torturing anyone who held different views. The idea that our best and most advanced had to die on a cross like some sacrificial animal is so twisted and horrible as to be unspeakable. He died because of our sins, not for them. That is one religious "truth" that does not fit anything in the great truths of the world we live in. That kind of thinking will destroy us. It is obviously a lie. This is what I mean when I say that we must unweave the destructive elements amongst the great truths otherwise contained in religions or political philosophies. We must trace the origins of the destructive things. Chimpanzees engage in surprisingly

sophisticated politics (De Waal, 1989 wrote the definitive book on chimpanzee politics), but they never built a civilization or questioned their own behaviors or the behavior of the physical universe that sired them. They cannot speak of building bridges to heaven. They do not question their motives or the way their brains tell them that the world works. They have no religion. If we kill enough of our greatest people, we can be just like them.

Nowhere is free thought more important than in the study of the brain. As in the story of the blind men and the elephant, the extremely large and multifaceted brain is highly prone to being misinterpreted. The more complicated and enigmatic the subject matter, the more this is true. The brain is unique and paradoxical among things in the universe that man has studied. It is the only thing we study which we see 2 ways—from within and from without. This presents some opportunities and some paradoxes. Opportunities to unlock all of the mysteries of existence as I have said previously, and also some new ways of doing science or deriving information from things must be involved because everything we look at is also a construction of the brain. We lay our theory of the universe over what we see. We were not prepared by evolution to see how brains operate, unless we look in new ways at the transparent things of our world—such as the way information (out there) is related automatically in us. There were never any contingencies which would have built such abilities to understand brain tissue until now-and our future survival is dependent on this knowledge now for a number of reasons I have already outlined. Perhaps the development of modern science has all been toward this ultimate exaptation when we take the reigns of our genetic future partially into our own hands to control our destiny. Since we have progressed in all the necessary fields of understanding ourselves, we will be able to see what is really happening in the brain using this knowledge. The brain, and brain science, are where it all comes together. We must go into the study of the brain above all with open minds (no pun intended). In many ways, the brain is fundamentally unlike anything we have ever studied--both because we are not directly prepared by evolution to study it, and because we are directly investigating the investigator, the complex organ of everything. It is the ultimate human pursuit-deeply questioning all that we are. We will not be able to hide from the light. We will not be able to remain enshrouded in the dark corridors of our rationalizations, politics, cultures, languages, outmoded patterns, and personalities any longer. We will be forced to see reality. We will be forced to see the elephant. We are studying the connections between ourselves and our universe. We are studying our origins, and our future--peering behind the veil of heaven at the true nature of creation. I changed the title of this book in the last few months before it was finished as I realized more and more how genetic forces must be factored in. If we look at behavioral statistics, profiles of different types of abilities, representation of ethnic groups in various fields of study, and historical records, these forces are quite salient. You can predict the crime rates of major cities primarily based on the ethnic percentages within it. It is the primary predictor of crime rates—just as IQ is the primary predictor of economic success. These

are not cultural phenomena, but stable genetic characteristics—we see that Japanese or Chinese immigrants have a lower crime rate, do well on intelligence tests, and excel in mathematical thinking even though they come from other cultures. We can see these things as part of their world view and overall cultural strategies arising from their genetics. I was amazed to find that all these things having to do with genetics are the keys to the larger picture in many areas of our knowledge—from archaeology and anthropology even to religion and politics. The mixing of these patterns can forever eliminate those who might have carried us forward. Beneath our artificial constructed languages and environment, our future is being destroyed. One of, if not the, main reason this is happening seems to be one particular pattern coming into conflict with the path of knowledge and truth of northwestern Europeans for purely survival reasons (i.e. with no "big picture" of this overall truth behind it)—the patterns talked about in Kevin Macdonald's series of books:

...a single century and to several very influential intellectual and political movements that have been spearheaded by people who strongly identified as Jews and who viewed their involvement in these movements as serving Jewish interests. Particular attention will be paid to the Boasian school of anthropology, psychoanalysis, leftist political ideology and behavior, the Frankfurt School of Social Research, and the New York intellectuals. In addition, I will describe Jewish efforts to shape U.S. Immigration policy in opposition to the interests of the peoples of non-Jewish European descent, particularly the peoples of Northern and Western Europe. ...these movements are viewed as the outcome of the fact that Jews and gentiles have different interests in the construction of culture and in various public policy issues. (from the preface to A Culture of Critique, 1998).

He is a California university professor who obviously had to have courage to broach such a touchy and complex subject as this. Certainly there is great potential to eliminate some of the most horrifying conflicts of the "slow war" between different ethnic types and their different, motivations, goals, and futures in this courageous information against the "PC" (read political/animal rigid darkness which always leads to violence) mindset. The mindset of our future destruction. If we do not embrace this information, the world and civilization cannot last. These are the most important issues currently facing humanity. Only one racial type seems to have the worldview and motivations to reach "escape velocity" from our animal past and they need to be protected and not only allowed to do this, but encouraged and assisted wherever possible. They must not be made to feel guilty, but rather proud and filled with a great sense of responsibility in carrying the torch of the ultimate path of all life. We can eliminate so much strife, darkness, and hopelessness, that we cannot let the short-sighted selfish programs of other ethnic or genetic groups or types affect us so much that we move forever off our path. That would be the ultimate if

slow genocide of what is best and contains the most hope for humanity. All of us need these men of the future, bringers of motivation and direction toward greater levels of life. By simply opening our eyes to the main sources of conflict, we can see where the diseases of violence erupt in ignorance and darkness, and how we can objectively evaluate ourselves and others.

Gene therapies or programs of incentives and duty to give rise to future generations who can raise us up can be put into place, as they *must* if we are to have a future--regardless of these conflicting patterns. We must raise ourselves forever out of the quagmires of animal-era blind conflicts. That time and those violent programs are becoming obsolete. It is a dangerous time as we step forth in knowledge and truth into a new future. In "Mein Kampf", Hitler said about the Jews: "Eternal nature inexorably avenges the infringement of her commands. Hence today I believe that I am acting in accordance with the will of the Almighty Creator by defending myself against the Jew, I am fighting for the work of the Lord." He saw himself as not really fighting other peoples' of Europe so much as fighting the political forces of other nations controlled by these Jewish-installed patterns and influences. I came across this quote recently (online) and it sums up a lot of what I had discovered myself about that era upon researching it. That is essentially a religious statement that Hitler made. Germany had the highest overall IQ and number of Nobel Prize winners at the time. They were the most advanced nation on Earth and realized the full importance of some of these things. Hitler certainly was on the trail to some great truths, but he and the world were not ready, not armored against destruction with enough truth—as has happened at other times in history. The death and violence that resulted were a result of ignorance not just on the part of the Nazis, but of the world. He did not realize the full truth which could eliminate violence. Truth has given us the technology to do what we need to do without blindness or violence. Understanding between peoples eliminates violence because people can be left free to follow what is in their hearts and in the patterns and plans of their genetics. We need to eliminate all "religion" *paradoxically* by unearthing the very *source* of all truth and all religion. Religion literally means "reconnection". We must now reconnect with that one source of life in truth forever and eliminate darkness from the Earth.

This is not a book about those genetic differences between peoples per se, but I think it is wise to point out that objective truth is heading in this direction and that our future of peace exists in these truths. Time is of the essence especially in the modern media-controlled and dominated society. We can love other peoples and their programs as ways we can learn about what is important and the kinds of forces at work in our universe. Certainly we can gain a deep appreciation for the processes in all of nature with these ideas. Religious ideas of the forces of destruction and the forces of life can give us much insight here in these ethnic questions too. Many of our deepest perennial conflicts have been religious. We can see religions as the future saying "this is what you need to do to get to me" through time filtered through our levels of knowledge and the exigencies of the times. Descriptions of the "destructor" in religions and how to

overcome it have a common theme—from the "devil" in Christianity, to the path of destruction in the Hindu religion. Overcoming animal natures for higher patterns and transcendence, overcoming illusion for reality. Finding ultimate truth. There is accurate information echoing everywhere about these things. Meaning is everywhere in nature. Brain science is the keystone in the great arc of inquiry from past to future. This is where the religions of the world, and the hard sciences come together--no matter how we like to think of them as separate. Brain science is the study of the nexus of man and universe. We cannot afford our blindness in this quest. We must pay attention to how our own minds work. We must shut down our untold millenniums-old auto-pilots that gave us nurture, and survival, to face our destinies in the holy future of knowledge. We must grow beyond the organs of our biological past with our well-organized and systematic knowledge and the organ of higher thought.

I read a story recently about a man who climbed Mount Everest (Rosen, 1990), without a support crew to help him, or to rope himself to in order to prevent a slip or fall. He climbed one of the hardest faces of the 29,000 foot peak without extra oxygen. For comparison, aircraft are required to use oxygen or maintain a pressurized cabin after about 10,000 feet. It is inspirational that someone can do such a thing, risking everything, to meet such a challenge. We are fascinated with mountain climbing (Also see Venables, 2000) because it is so symbolic. It is a metaphor for the journey of life. That is what this book is too. It will be my task to forge a path of possibilities in more ways than one with this book--Without a PhD, and without any support group. It is my greatest hope that you will be stimulated to question by the ideas within. This is my personal measure of success. This book is about new ideas and thinking avenues--alternate theories. Pioneers built this country. Bold, self-educated men gave us freedom at the expense of their lives and livelihoods. There is no freedom without free thought. If you would not go on your own to a library to educate yourself, what is the real value and purpose behind paying others to educate you if you don't want to really learn? Intrinsic motivation is intrinsic to free thought no matter what the origin of your education--self or others. Fools gold sparkles on the surface, but has no intrinsic value.

By speaking about these important keys to our future in truth, I lay down a gauntlet of extreme danger. An ultimatum. Especially with the modern corrupted media streaming into our homes. People not motivated by truth can now understand better the language of truth, and that is power to deceive and manipulate the best of the best. That is the power to use it as a lever. Now we have no choice but to remove those patterns of genetics from the societies which have been advancing toward truth all along because this technology is way too dangerous and never meant for their low minds and motives. We must be aware of these things to get where we are going finally, and so there must come a final battle of good and evil in the abstract realm. We must stop worrying completely about politeness. We cannot tolerate the lesser motivations that murderers and liars have any more—either with our nuclear technology or any other more dangerous technology. Those were only meant to

help US on the path to truth, not gain resources for them or to serve lesser patterns. Our souls must not be stolen or corrupted for these lesser things. We need to align all our minds with the future. Our position is very precarious. Destruction is in our midst in identifiable form cloaked in lies fashioned partly from us and full of earthly political and financial power. This is partially a blessing because the destructive force has been embodied in genetic forces and influences and therefore can be removed from us. The people destroying us may or may not know what they are doing to some extent, but their very different motivations and world view keep them from seeing the truth of this larger pattern we are moving toward. Simply only being able to see in the here and now can make you an unwitting instrument of destruction. That is tricky because evils twisted world view, incomplete world view, causes them to misinterpret larger patterns of behavior and larger universal purposes as "evil" to them since it goes against their own survival patterns. They cannot understand objective evaluations of evil. Without self-knowledge and transcendent higher knowledge, it is difficult to discern right and wrong objectively. Some are simply unable to do this, yet very intelligent and skilled in other ways. They automatically see the world only in reference to themselves. Simply leaving their alien influence in a population towards truth can destroy it because of their very different world view. Ignorance and motivation by immediate survival in relatively short-term benefits and resources is the only origin of evil. Higher knowledge can help us to understand this and help us to maintain our humanity and sense of justice in the face of unspeakable horrors against the creator and his chosen children. We must study the patterns of other peoples and realize we are in this together if we do not want to repeat the mistakes of the past.

As a few concrete modern examples of this, I mentioned that Dr. Kevin McDonald has written several excellent books on Jewish survival patterns (among many other authors such as Baker, 1974). Understanding how and why they have sought to remove important knowledge and peoples from the patterns of our civilizations can help us overcome these destructive influences. Hopefully it will help them to overcome these destructive motives and larger invisible patterns which are sending the world to its doom by every indicator of truth in the larger overall patterns. The overall behavioral and pattern vectors they are installing in our civilization are leading us to our destruction and enslavement by partial truths which we may never recover from. We need to pay attention to genetics, and the vectors of these larger genetic diseases. We need to not be controlled by "PC" mindsets and a completely biased world view from their control of the media. Vision can save you from death. Knowledge is real power. Understanding the different patterns and motivations of different groups of people can bring ultimate peace and justice. We all look pretty similar on the surface, and bleed real blood, but the invisible larger patterns that operate across lifetimes and across history are built by crucial decisions made from the knowledge your brain lets you see. Jews tend to see cultural patterns as totally arbitrary, because of their survival patterns within diverse other

civilizations. They do not see larger patterns, but only the levers and lines of power they might need now to survive and cloak themselves among us. They take on the semblance of our patterns when they need to automaticallybecause those who did not did not survive. Even though in this example we can see how our two patterns are totally incompatible because of much larger invisible patterns across time, by seeing them we can all see what need to be done objectively. Darkness and fear breeds violence, not truth. Everyone can agree on whole truth. A cancer must not be allowed to use the resources of the holy body of truth in life. A cancer is growth without higher potential, power without vision. We have to remove it before it spreads. That is not pejorative, hateful, or inciting violence since violence is not a solution for modern minds. Sometimes things are so big we cannot see them. The less truth we have and the blinder we become, the more destructive these things can be. Part of the reason we do not see them is because we are not paying attention to the right things, we are being led away from the right things by political forces as a selfprotective measure of another pattern within our own. We must protect the patterns and symphony of the creator against even well-meaning but blind influences which are from another time and lesser realities. The people of life fight for the future, the people of destruction fight only for themselves on the shorter scale—the much shorter scales of immanent destruction. It takes many years to build a great structure, but only an eye blink to blow it all up. Destruction may seem formidable-as the influences of other patterns and strategies of immediate survival have destroyed truth seekers around the world for many thousands of years in uncanny overall patterns, but we need to understand and take hope in the fact that the life force operates and builds by definition (echoing in our own city building) on much larger time scales, and with more complete truths. We, however, must understand how precarious this is right now because the future depends on our pattern prevailing and the destruction has grown mighty-disabling our normal vision or immune system. AIDS is symbolic of this larger pattern of destruction and offers vision-in that a virus gets into a beautifully organized advanced symphony of cells in a body and injects foreign instructions into that cell. It displaces the patterns in the nucleus which are repeated all through the body in every cell from millions of years of evolution. Those infected and dispossessed cells then begin to manufacture more of the virus unknowingly toward its ultimate demisethinking they are following authority when they are not, they are following willingly and automatically the destructor. Normally the immune system takes care of these things. In our society it is our people most motivated by truth and heroism, but even these can be tricked into diffusion of resolve by cleverly manipulated bits of truth reflected back to us which originally came from us. Motivation IS everything. We are nearing the end of the incubation period for the patterns of the Jews (virus-like pattern) in our society. AIDS is truly like a "sign" of this final battle-symbolizing what is happening to us, and will happen to us in the future. So delicate and precarious is our balance right now, that we must work immediately and quickly if there is to be any hope of

salvation. They must be convinced to leave. Life has always been a war of good and evil-light and dark-in spite of the fact that our environment is now abstract and our weapons are abstract. Animals do not know who is right or wrong, they just fight blindly. We are the people of justice-the only ones willing to sacrifice our own in the face of truth if need be. That has been turned into a liability since our truth on which we depend, live, and make decisions has been so twisted by influences from other patterns. Our handles on which to recognize destruction and pull it up out of our experiences have been systematically removed and paved over with blind emotions against "racism" for example, when these things need and demand our rational consideration. Additionally, since we do love justice, the idea that we might be "racist" is particularly abhorrent to truth seekers. This sets up a self-defeating cycle backing us down the evolutionary ladder into darkness. We must learn to love truth again past these emotions instilled in us for the purposes of a lesser destructive pattern in our midst who act just like us on the everyday scales we attend to, but are very unlike us in terms of these larger patterns. We must get past the short-sighted emotions in us that they appeal to. It is very interesting and enlightening to consider these things and totally necessary to the future path of life on Earth. With whole truth, the weapons of destruction fall to the ground inoperable. We now need to use our freedom and all be kings. People can like freedom for different reasons-the Jews at first might like it for protection for them, but later come to abhor it as they seek more and more power, influence and wealth. Truth seekers never have this problem, they always like freedom. Freedom exists here for them and what is in their hearts. Freedom is part of a larger pattern contained in higher minds. Children do not have a lot of freedom because they are not ready for it. What was defined as freedom here is more and more becoming dictated by PC forces, as the ouster recently of Trent Lott illustrates vividly. If you want to know who is in power in any country, simply ask who you cannot criticize, whose program you cannot criticize. Truth is not in power here in this country, a Jewish press is-and we are the unwitting cells perpetuating and spreading their incompatible shortsighted patterns. Everything they do politically and socially removes our vision and resolve on the path of truth because it threatens them psychologically in their immediate emotional reactions and actually in the fact of our incompatibility of purposes. Like the virus and the immune system, they help shape each other over time. Now, however, things are different. Over the last few thousand years, they have taken on the technologies and symbols of what motivates us most deeply as levers by which to enslave us. These have been made available as part of our symphony on the path of truth in our civilizations-like a body of cells full of resources tempts a virus pattern to come forth. Our complacency is compounded because we see reflected in lots of different life forms elements of truth. We become filled with love of the creator with our eyes only on him. The black underbelly of reality can escape us because we are good people at heart. This is part of the danger of false idolswe can think we have arrived when we have not because of mere comforts and

symbols in front of us, while an unseen war in "heaven" rages all around us. A war for the future—one of two futures. We can accidentally let the wrong seeds grow too powerful-to the point where our own knowledge and vision lets them see and attack our own immune system directly by manipulating us with information and our automatic attention to it--as it did by setting it against itself by manipulating information and larger patterns across many years leading to the blind horrors of WW2. It is hard to imagine what it must be like to have no larger meaning or soul of purpose than this. How empty and desolate and desperate that must be. I have true pity for these people and the patterns they so artfully purvey into the centers of learning, information, and power in civilizations. They are not our children, they are not our women, they reflect the danger and destruction in life, not the life-force. Every civilization faces these sorts of patterns. We have enough information to identify and deal with ours, however, before it destroys us. We must now become fully conscious to bring the truth of our salvation and something totally new into being to finally jump out of the darkness and death and fear which characterized the past which formed us.

I had a friend who died alone on the street in New York from a drug overdose. He was one of the smartest and funniest people I ever knew, yet he became addicted to drugs. No one could stop him from these destructive patterns. Civilization is just like that-we have destructive patterns and drugs that make us feel good in our midst, and a blindness as to where they are taking us. We have some underlying depression we are trying to medicate with these things. We need the hope of truth to alleviate these things. This blindness and depression is destruction coming home to roost from our future. I can see it. I can feel it all around us in the patterns of false things we have taken on, and I can also see a miraculous way out. We will not be destroyed, our spirit will not fade like it has in every other civilization that has arisen and, found lacking in truth, faded away in blindness and depression. We are not just a symbol any more, but have become the great living thing existing now that past civilizations symbolized. The excitement and commitment within the people of a civilization comes from the future-just like a universe is pulled out of infinite possibility by a singular force beyond time in the future of what we call time, towards that future. This is the same principle that pulled us from the void. I cannot sit idly by and watch the civilization, the life, and the truth I love self-destruct as my one time friend did in a far away city. Destruction has all of us by the throat, and we have been indulging in short-sighted behaviors which are the beginning of a path to the addiction to the choices of destruction. Once on that path our doom may be lengthy, but the downward cycles of patterns will make it permanent. We will need more and more feel-good illusions as destruction comes home to roost more and more, as it takes over our motivations and drives us to the end. We will lose our power as our best minds become hopeless, break, become self-defeating, violent, or sink into irrevocable depressions. Spirituality is important, and it is something real. Each of us needs to make a different choice. We need to stand up, find that endless

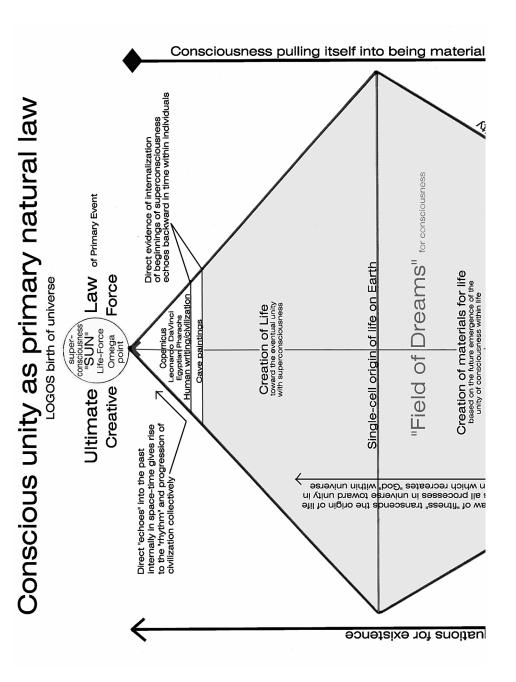
spirit which drove the progression of all life, don our armor and paint our faces blue like the sky of our future-holding the sun of truth in our hearts. We will make ready for battle like in times of old again. The dark one is here bringing his dark future in this dark city and we must do battle against it, or we can simply lay down and die. I have never been one to lie down. The sun in me burns with more timelessness than the material one of the symbolic solar system we live in. It is also more powerful. We need to learn to see by the light of this sun. I love life too much to do otherwise because I love the force and will that made life toward truth. Our weapons are different now, more technical and invisible in the abstract realm, but we still need to be warriors and root out the enemy which holds our destruction against us—which mirrors our potential destruction here in the present in very real ways. We need men and women not afraid to fathom the darkness of their own minds and separate out creation from destruction. Warriors, defenders, and hunters need vision especially in this abstract realm. Religion will become something else, something that will change us forever. Ideas of male and female must be seen together as symbolic of something greater in their unity. It is time for a new world to be born, the war to be won, and we must not lay down until it is done because the future depends on us. The future is waiting for us if we choose the path of truth, and prepare a safe home for it. Truth is the child of the universe which contains the life force. It is time to wake up from history, time to be born again.

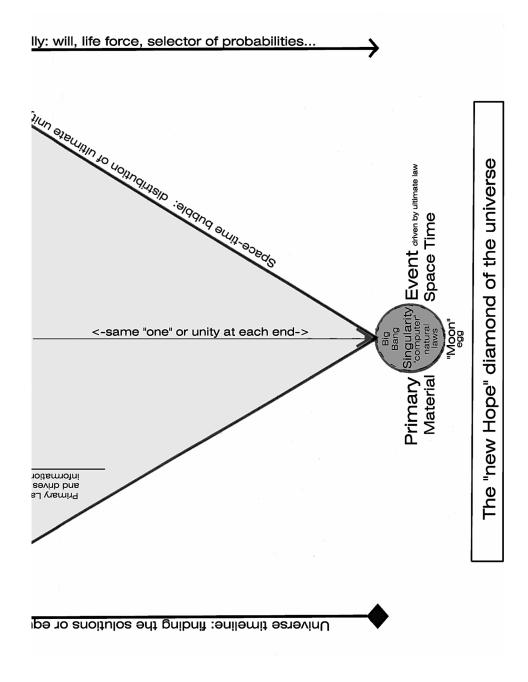


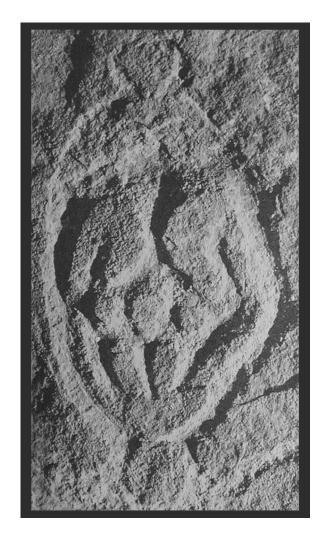
About the Author:



Steven Eric Romer was born in 1964 in Waukegan, Illinois. After a year there, he grew up in Fox River Grove IL, and moved to Crystal Lake, IL in 6th grade. He attended Graceland College in Lamoni Iowa for a couple of years, and later finished his undergraduate degree with honors in psychology at Illinois State University where he met his future wife Meagan. Around this time is also when he took up surfing on Lake Michigan. In 1990, he moved to Georgia and spent four years in the PhD program in Behavioral Neuroscience at Emory University in Atlanta. Meagan followed in 1992 after 2 years in a clinical psychology masters program in IL. In 1993, he and Meagan were married. Later, he transferred to the University of Memphis program in psychobiology to finish his dissertation work. In 1995, he left school to work on this book. In 1996, and in 1997 his two sons Elijah and Noah were born. In 1996, he began working for FedEx at the Memphis hub at night and taking care of his kids during the day. In 1998 the family moved to Knoxville, TN where Steve continued his work with FedEx at the Knoxville airport near the beautiful Great Smoky Mountains National Park. A lifelong dirt bike and motorcycle rider, he spent many days riding deep in the mountains of East Tennessee with the Volunteer riders on and off the road-a motorcyclists paradise. Steve also loves movies, writing, and reading. He finished most of the final work on this book in Knoxville. Also while in Knoxville, he traveled around the world presenting these ideas at various conferences preparing for the release of the book and met with his first successes. Steve loves to travel, and has traveled and surfed all over the world. This is his first book.







Opposing male and female figures from limestone shelter at Laussel, France. (ca. 20,000 B.C.E.). Cited in "A History of Mysticism". These need to be seen in a single brain, not as an external bifurcation. We need unity of knowledge to get past all such living or inanimate symbols in this world. The ultimate mind transcends male and female and everything else. In my diagram, just beyond the top and bottom, the two aspects of the universe are actually one. In the cellular mitosis pictured here, we see this theme echoed again. This is how unity is multiplied. All DNA is one, really and allows singular purpose to the proliferation of cells in a body. The universe is a distributed unity also.



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- 213—The spiral of unity in logos explained. The basis for all symbolic effects and our ability to engage in abstract thought. For example, trees in their natural context symbolize the overall reality, pyramids do also, so does our brains, so does our writing—whether hieroglyphics or our modern literary works. These are all Logos-echoes. The Sun is of course the primary one.
- 214—Explanation of pyramids and their motivational significance in echoing natural processes and the primary pattern. What motivates life demands that we humans who have taken on the path of truth move toward what pyramids symbolize. We are able to do this now in the information society via consilience of knowledge and our ability to engage in accurate eugenics ourselves based on this knowledge. This is the future of life.
- 215—Tree of life/tree of knowledge/phylogenetic tree/world tree/bodhi tree, etc. Illustrates the metaphor in the overall context of trees in nature. The hewn artificial cross of dead trees upon which the messiah was crucified illustrates the danger of hewn-up truths serving political purposes well. It also portrays the future in doing these sorts of things—we will kill off our best and brightest. We will destroy the light and truth of the world by not understanding the nature of whole truth. Within the travels of life in space-time, this has been the primary task upon which all species have been cut. It is now time to move on to a new era and leave these patterns behind. Both pine trees and all other trees approximate this language or reflection of the universe. They just emphasize different aspects or "say" it differently as all our different religions by and large do. The trees

themselves are also "religious" in this sense—to the best of their ability to follow divine will or the primary natural law of meaning.

- 216—Falun Gong Wheel of the Law of the Universe.
- 256, 257, 258—A simple everyday example of the probability-altering effects or "gravity" of a developed consciousness on reality. Civilization could not progress or hold together without these forces and truths organized and transmitted by our best minds back onto reality. Our best minds organize things for reasons only apparent in the future. That's why freedom is so important. Wrong information makes for bad cycles of information and eventual destruction (like Karma ideas, or "what goes around comes around"). This is actually true, not folk wisdom. Love of truth is the only survival pattern with a future. Deep down we have a "collective soul" in this which allows higher coherence to emerge, build on itself, and build a civilization. This is what monotheistic religions call "God", or the more polytheistic have called "king of the Gods" when they saw the grand overall coherence of these things across time and space. A "heavenly hierarchy" of angels, so to speak (in the obsolete language of religion). To nor follow truth is to diminish the future, and to lower our own power and probability of survival. Some strategies might be better in the short run, but only one can see us through to eternity. This is diagrammed in the "Hope Diamond" of the universe (borrowing another motivationallysignificant cultural icon, blue and full of the future echoed in the movie "Titanic" by the "Heart of the Ocean"). When civilizations fall, it is a throwing back of this gem into the ocean. This pattern logically culminates in our modern information society with its burgeoning consciousness sciences bringing together all fields of knowledge. We can only blast our way out of darkness by blasting through all symbols which are imperfect and seek to steer us wrong. We can only do this by paying attention to the context of all knowledge and all symbols illustrated in the complete diagram of the universe echoing the will of the creator. In a religious way of seeing, this really is the "Armageddon" of the over soul in a way—by this struggle we can save ourselves for all time and reach the future of our dreams. Each civilization has its echo of this Armageddon. It is the final test, the final judgment, the final battle of the fearful dark symbols of the narrow, static, degenerate animal patterns in us pitted against the men of the future and the bright, glorious future of ultimate truth, justice, and peace full of sun light. This diagram shows the reality behind religions.
- 260—A hieroglyphic or "picture writing" representation of a scene in the pharaoh Akhenaton's life. The disk of his monotheistic religion of the heat and light of truth. extends its rays down from the sky (metaphor for future—he had to use what he already knew like beetles and sun to explain what was inside him and building in his knowledge, like we all do). Note the ankhs—symbols of life—being held to the peoples breath depicted by the "hands" on the rays reaching into the past. The sacrifices depicted are a

necessary component of motivation by the ultimate motivator or binding force of the universe. All life has been sacrificed repeatedly in death for billions of years, so that others understanding these realities better might therefore live. At the personal level, as in the American revolution of 1776, a willingness to sacrifice anything and everything is indicative of being motivated by truth above all animal urges. Even though they faced and used violence, their motives made all the difference to the future. Asceticism, self-flagellation of monks, and perhaps even masochistic tendencies come from this—all saying or emphasizing these things in different ways, and showing devotion to the creator by so doing. To fight for truth is definitely the only real reason for wars. All else is destruction. This is related to the need to now move beyond the symbol of Christ being sacrificed on the cross. We need to increase the numbers of our best and most perceptive speakers and readers of analogy, metaphor, and parable. The time is right now.

- 322—The "Romer" Platz in Frankfurt Germany. I love the German people. They have a great inner strength. They are a motivated people capable of following the true path of truth. The Bavarian King Ludwig built Neuschwanstein castle on which walt Disney modeled his Sleeping Beauty castle. Ludwig was very interested in new technologies and old myths. He certainly had an appreciation for beauty and the arts. I always think about the idea that if he had lived, the world wars would not have happened and many people would still be alive. It is an idea anyway.
- 323—The author, Steven Eric Romer, Dec. 2002, Crystal Lake, IL.
- 324--A larger diagram of the "will", the supreme law, the ultimate meaning of the universe echoed in all forms and all meaning in the play of life on earth. Anything regressive or degenerate goes against truth for the sake of lesser, more selfish patterns of the here and now like pleasure or money. It is therefore the main character of destruction that it has power over shorter time scales for more immediate things-working against the gathering, flow, and accurate reflection of knowledge in our mirror-ball of space-time reflecting this one light beyond time and space. Destruction is confusion, superstition, lies and the inability to read and follow the message. Language is a big danger because it allows these sorts of patterns to flourish if left unchecked. We can get lost and confused by symbols used out of context for other purposes than understanding or truth. Whole truth gives the diversionary or lying tactics of destruction no foothold. Eventually we will become like God living in pure truth and life. Like parents giving children responsibility once they have grown up, we will receive the power and keys to the universe if we follow the ancient path of all life and ancient religions illustrated here. We were meant to be here, the universe is fundamentally us. We are the force of nature in our consciousness, as illustrated here.
- 335—Opposing male and female figures from Laussel, France (ca. 20,000BC). Found the day before book sent to press. Feb. 2, 2003.



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